

ROCKY MOUNTAIN MEDICAL JOURNAL

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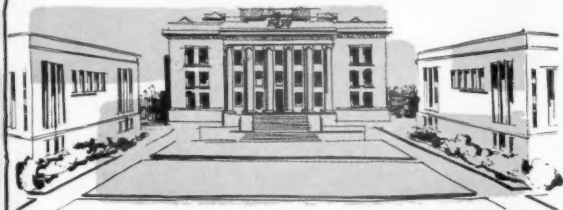
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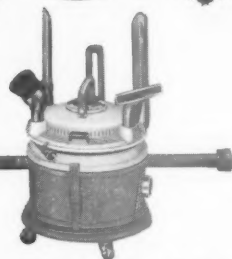
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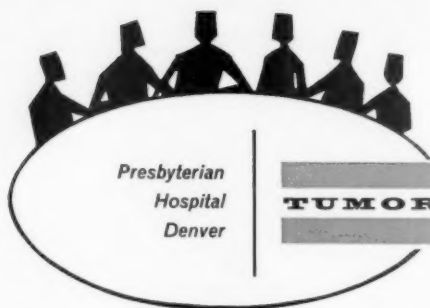
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Lobular carcinoma of the breast

Henry W. Toll, Jr., M.D., Moderator, Elmer W. Koneman, M.D., Resident in Pathology*

Comprising less than 2 per cent of all breast carcinomas, lobular carcinoma is infrequent. However, a number of unique features make this type of breast carcinoma of importance far out of proportion to its low incidence. Lobular carcinoma of the breast was first recognized and described by Foote and Stewart¹ in 1941. The disease specifically affects the terminal breast ductules and characteristically remains confined to the ductules for a prolonged period of time. Such carcinoma in situ, however, may ultimately show invasion with a tendency toward rapid spread, at which time it simulates other types of infiltrating duct carcinoma.

The diagnosis of lobular carcinoma in situ cannot be made clinically. A breast mass may be incidentally found during a routine physical examination or the patient may complain of a slowly growing tumor. Pathognomonic signs such as nipple retraction or discharge, fixation to deep tissue, or "peau d'orange" skin changes do not occur. Moreover, the diagnosis cannot be made upon gross examination of the biopsy specimen. Characteristic firmness, radiating fibrous bands or chalk streaks are absent. Of particular significance is the frequent histologic misinterpretation of lobular carcinoma for such benign conditions as lobular hyperplasia or sclerosing adenosis.

Because of these unique features, the following cases are presented for discussion:

Case 1: A 42-year-old white female first noted a mass in her left breast in October, 1959. A physician was consulted in January, 1960, because of slow growth of the mass. Pain or nipple discharge were not experienced. Examination of the left breast revealed a pyramidal shaped freely movable firm mass in the lower outer quadrant. There was no evidence of nipple retraction or changes in the overlying skin. Excisional biopsy was performed.

The biopsy specimen measured 3.5 x 2.5 cm. in greatest dimensions. Sectioning revealed a moderately firm homogeneous gray white tissue which contained a few 5 mm. in diameter cysts.

Microscopic examination revealed background changes of fibrocystic disease. Specific pathology was related to the lobules which showed changes ranging from varying degrees of fibrosing adenosis to lobular hyperplasia with metaplasia to anaplasia of lobular carcinoma (Fig. 1). In these latter lobules, proliferating epithelial cells displayed pleomorphism, the nuclei were moderately hyperchromatic, and mitoses were noted in increased numbers. Although the carcinoma appeared in situ in most areas, superficial stromal invasion was evident in a few foci.

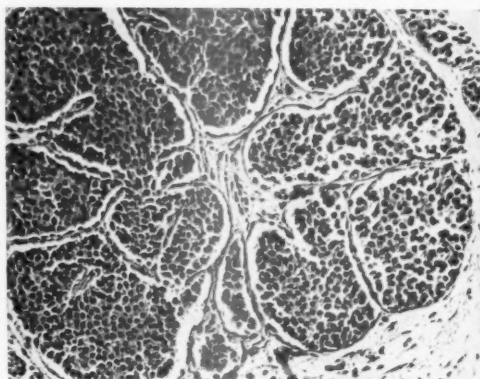


Fig. 1. Typical pattern of lobular carcinoma in situ of breast. (H & E x 75).

Discussion

This case well illustrates the lack of symptoms and the slow growing nature of lobular carcinoma in situ. Because there was evidence of early invasion, a left radical mastectomy was performed.

*Supported by grant from the Frieda L. Maytag Memorial Cancer Fund, Colorado Division, American Cancer Society.



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Axillary lymph nodes were negative for metastatic carcinoma.

It may again be emphasized that the biopsy specimen was more characteristic of fibrocystic disease than carcinoma on gross examination. This inability to diagnose lobular carcinoma in situ upon gross examination has led Godwin² to advocate frozen section examination of all breast biopsy specimens in order to detect the disease in its pre-invasive state.

Case 2: A 47-year-old white female had a small mass removed from her left breast in 1941. The diagnosis was fibrocystic disease. In December, 1959, a small mass developed at the site of previous biopsy. By March, 1960, the mass had increased in size and a physician was consulted. Pain or nipple discharge were not experienced. Examination of the left breast revealed a well healed surgical scar beneath which was located a 3 cm. in diameter discrete freely movable mass. At the time of biopsy, a second smaller mass was discovered at the axillary border of the breast, some 2 cm. lateral to the original mass. Excisional biopsy of both masses was performed.

Gross examination of the small lateral mass revealed characteristic changes of infiltrating duct carcinoma. This was confirmed by microscopic examination. Although the larger medial mass was quite firm, a definite diagnosis of carcinoma could not be made from gross examination. Histologic examination also revealed nests and cords of cells trapped in fibrous tissue characteristic of infiltrating duct carcinoma. However, in many foci a pattern of lobular carcinoma was identified (Fig. 2). Although not conclusive, the origin of the infiltrating duct carcinoma within the lobular carcinoma was suspected.

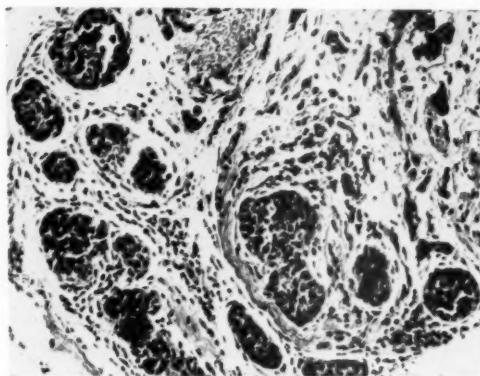


Fig. 2. Pattern of lobular carcinoma in conjunction with infiltrating duct carcinoma of the breast. (H & E x 75).

Discussion

This case is of interest in that an invasive carcinoma of the breast developed at the site of a benign lesion which was removed 18 years pre-

viously. That lobular carcinoma of the breast may remain in situ for years is supported by a case recently reported by Godwin²: A 64-year-old woman developed an invasive lobular carcinoma of the breast in 1948. A breast biopsy from the same site had been done 12 years previously and was felt to be benign at that time. Careful review of the earlier sections by the authors revealed lobular carcinoma in situ. The case presented this morning differs from Godwin's only in the longer time interval between biopsies. However, review of the slides from the 1941 biopsy of our case revealed fibrocystic disease with no evidence of carcinoma. It remains of interest that a lobular pattern was a prominent component of the invasive carcinoma found in the current biopsy. It is possible that clinical manifestation of the lesion occurred only after invasion, supporting the current view that lobular carcinoma of the breast may spread almost explosively once invasion occurs. It would be impossible to say how long the lobular carcinoma may have remained in situ in this case, except that it was less than 18 years.

As noted in the case history, carcinoma was present in two foci. This probably represents intramammary spread in this case. However, it should be pointed out that lobular carcinoma in situ tends to occur in multiple foci. Because of this tendency, Foote and Stewart, in their original paper, advocated simple mastectomy as adequate treatment, provided that the cancer was in situ. Since that time, however, a number of cases have been reported in which regional lymphatic or distant metastasis developed after simple mastectomy in patients who were felt to have had an in situ cancer. Thus, it is evident that unless the pathologist does serial sections of the breast containing apparent lobular carcinoma in situ, foci of invasion may be missed. More significant is the recent work done by Ozzello³ at Columbia University. In a study of 180 cases of carcinoma of the breast, 22 were considered to be in situ at the time the lesion was diagnosed. Of these 22 patients, two subsequently developed regional lymph node metastasis, and a third patient died of disseminated breast carcinoma four years after operation. By using special histochemical staining technics designed specifically to demonstrate the behavior of the basement membrane, foci of disruption, which were not detected by the conventional methods of staining, were found in all three of these cases.

From these experiences, it is suggested that radical mastectomy should be considered for lobular carcinoma of the breast, even if the lesion is felt to be in situ after careful microscopic examination.

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- ¹Foote, F. W., and Stewart, F. W.: Lobular carcinoma in situ.
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- ⁴Ozzello, L.: The behavior of basement membranes in intraductal carcinoma of the breast. *Am. J. Path.* 35:887, 1960.

JULY 14 MARKED THE END OF LIFE for Dr. Casper F. Hegner, one of Colorado's outstanding doctors. Although stricken by tuberculosis in the eleventh year of his brilliant youthful career as pathologist and surgeon in

Casper F. Hegner

Past President, CSMS

Cincinnati, and, although physical disability compelled retirement from his surgical practice 12 years

prematurely, in the interim he achieved for himself remarkable success in medicine in Denver and the Rocky Mountain West.

Dr. Hegner's practice included general surgery, yet he manifested early and special interest in surgery of the chest—a field in which he was one of the pioneers in this region. His decisiveness and certainty in diagnosis, his insistence on meticulous and painstaking technic and procedure sometimes gave his confreres the impression that he was intolerant to other than his own points of view, but there never was occasion to doubt his integrity or surgical judgment.

Aside from his practice, much of his thought and effort was devoted to medical education and medical organization. He joined the faculty of the University of Colorado School of Medicine early in his Denver residence, becoming Professor of Surgery and Chief of the Surgical Staff (1936-42). At the same time he was making frequent scientific contributions to local and national medical publications. Dr. Hegner was President of the Colorado State Medical Society in 1948-49. He was an active member of the American Medical Association, the American College of Surgeons, and many other scientific and professional organizations. His unusual capacity for making friends and acquiring "first name" acquaintance in these associations, and his contributions to their purposes, made him a national figure.

As was said in fancy of Abou Ben Adhem, "May his tribe increase." C. F. Kemper, M.D.

IT IS CURIOUS that despite the widespread public and professional interest in homicide there have been comparatively few comprehensive scientific studies of the mainsprings of murder. There have been a number of

Homicide, Suicide And Crime Prevention

psychiatric studies of individual murderers, but there has been little research which ana-

lyzes criminal slayings from a sociologic perspective. The present study is therefore a welcome addition to the literature. An author, a sociologist, using the detailed case files of the homicide squad of Philadelphia, has produced a valuable study of 588 cases of criminal homicide, which occurred in that city between 1948 and 1952.*

He is careful to point out that a thorough psychologic examination of the offender and of the victim would be necessary to unravel the conscious and unconscious determinants of homicide. Dead men tell no tales and as the offenders were not subjected to psychiatric study, the author wisely admits that his study does not directly examine causality. Nevertheless, his report on the conditions and circumstances of criminal homicides is a remarkable fund of information, which should influence our efforts to prevent such crimes.

The attitudes of society are generally positive toward the victim and negative toward the offender, who is often feared as a violent and dangerous threat toward others. However, data in the present study mitigate, destroy or reverse these connotations of victim-offender roles in one out of every four criminal homicides. In 150, or 26 per cent, of the 588 homicides, the victim was the first to show and use a deadly weapon, to strike a blow in an altercation—in short, the first to commence the interplay of resort to criminal violence.

*Patterns in Criminal Homicide. By Marvin E. Wolfgang. Philadelphia, University of Pennsylvania Press, 1958.

The higher incidence of slayings at the weekend than during the remainder of the week was attributed to payment of wages on Friday and the purchase of alcohol. Either or both the victim and the offender had been drinking immediately prior to the slaying in nearly two-thirds of the cases. Men kill and are killed most frequently in the street, while women kill most often in the kitchen, but are killed in the bedroom. It is perhaps distressing to learn that, statistically, one stands a greater risk of being murdered by a member of one's own family than by a stranger.

The reluctance of juries to inflict the death penalty is shown by the fact that only seven offenders were sentenced to death. Indeed, more murderers inflict death upon themselves than are put to death by legal execution. The author finds it difficult to explain why suicide following homicide is five to six times more frequent in England than in the United States. It is disturbing to learn that of 6,435 criminal homicides in 18 U. S. cities between 1948 and 1952, the police were able to make arrests in 90 per cent of cases. Hence, one perpetrator out of every 10 who committed criminal homicide known to the police was able to escape apprehension.

Of considerable practical significance is the fact that 64 per cent of the murderers had previous arrest records, largely for offenses against the person, including aggravated assault. Many of the persons previously arrested were convicted but given relatively light sentences and probably little constructive attention. That two out of three of these murderers had previous arrest records shows the need to recognize early and treat more carefully the potential homicide offenders. Under the present "cash register" system of punishment in Colorado, the convicted offender is sent to a penitentiary for a varying number of years and is eventually released, regardless of whether or not he remains a danger to society. Surely, there is a pressing need for an indeterminate sentence law under which the sentence imposed by the court is for an indeterminate period, and the exact time of the defendant's release is decided upon later by an administrative board. Just as the insane person remains in a mental hospital until he is well enough to be discharged, so the criminal offender should remain con-

fined until it is reasonably safe for society to set him free. An effective indeterminate sentence law would require that every effort should be made within the penitentiary to modify the offender's pattern of antisocial behavior.

An important implication of the above study and statistics is that better supervision of persons convicted of aggravated assault, assault with intent to kill, or a series of less serious personal assaults may lead to a decrease in the number of murders in our society.

John M. Macdonald, M.D.,
Assistant Medical Director,
Colorado Psychopathic Hospital

MY J.A.M.A.'s are sitting on the garage floor awaiting the Saturday pick-up by Boy Scout Troop 117. Other journals are awaiting sufficient reading time and then they take their turn in the garage.

Colleagues Everywhere The originator of "Colleagues Everywhere," Dr. Charles Dougherty of Jeanette, Pennsylvania (603 Clay Ave.), would like to have you write to him for the name of a fellow physician overseas to whom you could mail your old journals. Apparently many areas have practically no medical literature available and their doctors welcome the chance to catch up on medical current events. The cost to the volunteer "sender" is the cost of mailing each journal, usually 14 to 24 cents. The dividend in return is the personal satisfaction of having helped a colleague overseas. An important secondary gain is the betterment of American relations abroad and, through that, a real deterrent to the spread of communism. So——:

Wait! Don't toss our R.M.M.J. in File 13. Save it until after you get *your* buddy's name from Dr. Dougherty.

BE SURE TO SEE PAGES 64 THROUGH 73, the program section in this issue, for the outstanding Annual Session programs of Colorado, Montana, Nevada, Utah and Wyoming.

The physician and the future of the private practice of medicine*

Lewis M. Overton, M.D., Albuquerque, N. M.

TODAY AMERICAN MEDICINE FINDS ITSELF at the crossroads of the future. Both roads are wide, smooth, and appear little different as they lead in opposite directions. However, if one follows these roads over the horizon with the aid of strong binoculars, a great contrast becomes apparent. The road to the left becomes narrow and rough as it winds itself over the hills. Along and adjacent to it appear hordes of people, including physicians, laboring as peasants under the strong arm of a tremendous giant—the giant of socialism. On the other hand, the other road continues broad and smooth. There one sees the happiness and freedom of the individual who has the right to a life of his choosing. Which road shall be pursued? The time is no longer present when this decision can be made by a mere flip of the coin. The complete support of all concerned will be required in order to arrive at the right decision. Even then, it will be most difficult to avoid having the decision made for us. Much more suavity and diplomacy, as well as a keen insight into the problems, will be required for one to maintain his individualism and still command the respect of his position. This is needed more now than at any time in history.

To indicate to you the probability of the latter, a quotation will be taken from Arthur Schlesinger, Jr.: "Our contemporary society has little use for the individualist. Individualism implies dissent from the group; dissent implies conflict; and conflict suddenly

seems divisive, un-American and generally unbearable."

It will be a most difficult if not an insurmountable task to convince such a society that the preservation of freedom and individualism is the only means by which our present way of life can be preserved, when at the same time this society is being sold on the paramount importance of collective security, not knowing that such security implies the gradual deprivation of freedom. One is not sure that a substantial segment of the medical profession has not become a host to the same parasite.

Franklin D. Roosevelt

Let us review the progress and changes that have taken place in medicine since the first impact and subsequent influence, imposed on American society by one of the last of our great Americans, Franklin D. Roosevelt, to the end that it may better evaluate its position, and, to some extent, determine its future. First, may one digress to clarify the implication of the influence imposed by Franklin Roosevelt. He was a great man because of the way in which the social and economic changes initiated by him have influenced our lives. This is so, even though many do not consider this influence to have been to the best interest of our nation. This will be discussed further, but now let us return to the matter at hand. The discoveries and advances in the medical sciences have been so numerous and outstanding during the last two and one-half decades that they

*Presidential Address, delivered May 11, 1960, before the 78th Annual Meeting, New Mexico Medical Society, Albuquerque.

would have been considered miracles 50 years ago. This may be emphasized by a review of the more pertinent developments. In the late thirties chemists produced some substances that inhibited the growth of certain bacteria in the human body without being particularly hazardous to the host. This stimulated the microbiologists to more minute investigation of the environmental behavior of the various bacteria and viruses that are pathogenic to man. The development of the vast horde of antibiotic drugs, many with selective action on specific strains of bacteria, has been the fruit of a continuation of this study. Further, such studies have resulted in the isolation of some of the viruses; thus enabling the scientist to develop specific vaccines, such as the Salk vaccine for poliomyelitis. These accomplishments, together with the advances in diagnosis and treatment, both medical and surgical, of chronic disease, have enabled the physician to prolong the life of a great many more people and to cure most diseases in a much shorter period of time. In addition, the contemporary progress in other sciences has made the physician much more accessible to the people. The excellent road systems and high speed transportation has enabled him to see and treat many more patients in the same period of time than was possible for the physician of the horse and buggy days.

Precarious position

The question arises as to whether or not the rapid expansion of the scope of medicine has consumed so much of the physician's time that little remains for him to devote to insuring his freedom. There can be no doubt that this may be one of the basic factors responsible for the precarious position in which the private practice of medicine finds itself. As ironic as it may seem, the physician is a victim of his own progress. For example, the major emphasis placed on the science of medicine in our medical school curriculum has so impressed the importance of disease on the student and young resident that he often forgets that the host is a human being. So often the patient will be referred to as the cardiac in Ward B, rather than by name. This alone cannot explain satisfactorily the impersonal attitude of the physician toward

his patient that is becoming prevalent. However, the correct and complete answer may be found in an analysis of the impersonal society in which the physician finds himself. "Our greatest aspiration has become peace of mind and peace of soul. The symptomatic drug of our age is the tranquilizer. Togetherness is the banner under which we march into the brave free world." (Again to quote Schlesinger.)

Spark of greatness

If it is true that medicine finds itself a victim of the combination of its own progress and the society in which it lives, then one asks the question, why is this so? The answer may be found in the failure of our contemporaries to develop a great leader of the profession. Certainly one can find little solace in the failure of the American people to develop a great man capable of nullifying the destructive influences imposed upon them by the last great personality. A survey of the leaders in medicine today fails to uncover a Harvey, Osler, Cushing or Halsted. True, there are outstanding scientists but none of these have made any material impact on the future of the practice of medicine. This should stimulate all concerned to seek out and lend encouragement wherever a spark of greatness may be found. It is evident that the private practice of medicine cannot be indifferent about its capacity to survive and progress without great men. The free enterprise system may be lost to medicine if it loses its desire for heroes and its ability to produce them.

The most immediate threat to medicine as a private enterprise is the one posed by the politicians. They are losing no time in the promotion of unsound and undesirable schemes to governmentalize medicine. They know that salesmanship of a product or of a point of view is essential today. Therefore, to accomplish their goal they are using every known ruse to sell the people on the dire need of better health care for the senior citizens and that the only way this need can be fulfilled is through government medicine. To the end that they succeed, they refuse to consider as important the over-all problems of the aged. No effort is being made by them to help this group of people to help them-

selves. They, further, refuse to entertain the fact that the older people are still individuals who desire to continue to be active members of society to the end that they can live in dignity. To illustrate the government's lack of interest in these people as active members of society, one has only to visit our own state's home for the aged. Here one finds that the elderly people are receiving good food and clothing, but they have lost their place in society; they can no longer live in dignity. As a result they are a depressed, unhappy group.

If medicine is to convince the people that the politician's solution to the problems of the aged is not good for them, its members must realize the need for better salesmanship. As unpleasant as it may be to the scientifically oriented physician, it is essential that he stand up for what he knows best—and, at the same time, work to assure that it continues to be the best. He can promote his point of view in the name of organized medicine, not selfishly but on behalf of the public interest. To accomplish this, the medical profession must adapt its technic to the times.

In jeopardy

The more serious obstructions to the survival of the private practice of medicine have been reviewed. This does not mean that individualism and the free choice of physician are doomed. One cannot deny, though, that the future of both is in jeopardy. To overcome these obstacles and to reverse the trend to that of confidence, respect and prestige, it will be necessary that every physician not confine his activities to observing and

meditating on that which is pathologic. He must be keenly aware of what goes on around him at all times. He must not shirk from taking an active part in the affairs of his local community. Above all, it becomes even more important that he breed confidence, respect, and admiration wherever his travels may take him. How better could the future of medicine be assured than by following the advice of Henry Segerist, whose words I quote: "As doctors, let us stand shoulder to shoulder with mankind. It should not be a false, fictitious, superficial dignity, but a deeper knowledge of man and life which gives us the ability to counsel and lead our fellowman."

The frequent association of emotional and other functional disturbances has made many of the educators in medicine cognizant of the fact that the sick patient must be considered as a whole person, not just as a disease. One can gain more encouragement that this realization will bring about a return to the former thinking that medicine is both a profession of the sciences and humanities. If such can be made a reality the medical student and resident will receive a background in the art of medicine during the formative years. This will do much to restore the confidence and prestige that American medicine has enjoyed for so long.

It is hoped that this realization has not come too late and that it may produce the spark needed to create another great leader of medicine—one who may be able to restore the great heritage upon which American medicine was developed.

Let us learn from experience and not from catastrophe! •

American Board of Obstetrics and Gynecology

The next scheduled examination (Part 1), written, will be held in various cities of the United States, Canada, and military centers outside the Continental United States, on Friday, January 13, 1961.

Candidates submitting applications in 1960 for the 1961 examinations are not required to submit case reports as previously required to complete the Part 1 examinations of this board. In lieu of this requirement, new candidates are required to keep in their files a duplicate list of hospital admissions as submitted with their application,

for submittal at the annual meeting in Chicago should they become eligible to take the Part 2 (oral) examinations.

Reopened candidates will be required to submit case reports for review 30 days after notification of eligibility. Scheduled Part 1 and candidates resubmitting case reports are required to submit case reports prior to August 1 each year.

Current bulletins may be obtained by writing to: Robert L. Faulkner, M.D., Executive Secretary and Treasurer, 2105 Adelbert Road, Cleveland 6, Ohio.

Surgery in the management of pulmonary tuberculosis

John M. Salyer, Colonel, M.C.,* Denver

This paper, presented from a surgical viewpoint, gives clear and concise outline of the management of this still common and fatal disease.

DURING THE PAST 12 YEARS changing concepts in the surgical management of pulmonary tuberculosis have been frequent but not as numerous and baffling as the various medical regimens employing combinations of time-honored as well as newly developed chemotherapeutic agents. Presently developed highly effective antimicrobial agents singly or in combinations are readily available and seemingly sufficiently specific to cause us to ponder if surgery in the treatment of pulmonary tuberculosis will always be necessary in countries with economic levels and medical advancements comparable to ours. However, before we envision such therapeutic triumphs in the management of this still prevalent disease, we suddenly become aware of the many untoward factors and prevailing circumstances that so often deter such an ideal therapeutic program, i.e., successful management without the aid of surgical measures.

Some of these factors and prevailing situations which immediately come to mind may be listed as follows: Delay by the patient in seeking medical aid; diagnostic errors and incomplete evaluation by physicians and sur-

geons (such circumstances contribute to delay in proper treatment, thus contributing to the development of irreversible pulmonary lesions); economic factors; uncooperative and recalcitrant patients; drug hypersensitivities unfavorably influencing medical management; inadequate dosage or duration of drug regimens; initial infection by or development of drug resistant mycobacteria; associated diseases—e.g., silicosis, malignancy, etc.; improper or meddlesome use of potent hormonal agents such as corticotropins and corticosteroids; infection by unusual acid fast strains or mutants (some not presently understood or fully evaluated—e.g., atypical chromogenic mycobacteria); the less commonly occurring relapsing lesions, and of considerable consequence, the ever-present influence of mulcting or quackery. It is quite evident that additional factors, not listed above, also adversely influence the management of tuberculous disease; therefore, regardless of whether the ideal antituberculous drug is developed in the near future, it seems logical to predict that surgical endeavors, presently employed or new technics to be devised, will play an important and significant role in a considerable percentage of therapeutic efforts in the management of pulmonary tuberculosis for at least two or three future generations.

Current policy in surgical management

Since 1949 resection in the management of pulmonary tuberculosis has steadily increased in popularity and now most thoracic surgeons and medical chest specialists are inclined to consider extirpative measures as the best means of treating this disease, i.e.,

*Chief, Department of Surgery, Fitzsimons Army Hospital, Denver, Colo. This paper was presented before the Wyoming State Medical Society, June, 1959.

whenever the "post-medical" residuals present as surgical lesions. This policy in "therapeutic philosophy" has been so relatively uniform during the past five years that our Medical-Thoracic Surgery Review Board is reluctant to recommend any measure other than primary resection when surgical assistance seems in order. Primary extraperiosteal thoracoplasty, extraperiosteal plombage and Monaldi drainage are always kept in mind but seldom employed. By and large, phrenemphraxis, pneumothorax and primary pneumoperitoneum are procedures to be thought of and referred to only in terms of historical deference. We do employ pneumoperitoneum temporarily as an adjunctive space filling measure (a surgical expedient) two to four days prior to resection of lower lobe or basilar segments; one refill is commonly accomplished three to five days after resection which usually provides the desired elevation of leaf of diaphragm for a period of 14 to 21 days.

During the past five years the Thoracic Surgery Service at Fitzsimons has performed from 102 to 235 pulmonary and pleural resections each year in the treatment and diagnosis of tuberculosis (only 102 during 1958). Our present surgical philosophy, which we feel is sound and logical at this time, is exemplified in the following table listing surgical procedures rarely employed or dropped as a means of management by the Thoracic Surgery Service during this five-year period (1954-1958 inclusive):

TABLE 1
*Uncommonly employed surgical procedures
five-year period*

	Procedures
Primary extraperiosteal thoracoplasty....	5
Primary extraperiosteal plombage	2
Monaldi drainage combined with thoracoplasty	2
Phrenemphraxis	0
Pneumothorax	0
Primary pneumoperitoneum	0

It is evident, therefore, that pulmonary resection is used almost exclusively, primary thoracoplasty being utilized rarely at this Pulmonary Disease Center; the latter pro-

cedure, if employed, is usually of the modified type (non-removal of the first rib with extrafascial apicolysis) and performed concomitantly with lobectomy or pneumonectomy; thus, primarily a pleural space reducing procedure. During the past three years, we have employed parietal pleural tents quite often with impressive results in most instances and with no serious complications in any. Presently we favor the use of this temporary collapse method when, at surgery, the remaining lobes and segments do not expand sufficiently to fill the upper pleural space and if a rather flattened lung surface results after the primary pulmonary resection. Therefore, lowering the cupola by this technic is utilized more frequently after upper lobectomy than after upper lobe segmental resection.

The properly performed segmental resection for localized disease continues to be the procedure of choice and has been at this hospital since 1952. Wedge resections, by and large, should seldom be performed for proven tuberculous lesions; however, wedge removal may be utilized occasionally for small, well-localized peripheral lesions incidental to the primary lobe or segmental resection. We do not hesitate to resect lesions at an early date which defy a definite diagnosis (operative risk being duly considered) and which have some characteristics of neoplasia as well as inflammatory foci; such undiagnosed lesions are usually explored surgically after the patient has received seven to 14 days of intensive combined antituberculous therapy. A survey of the early postoperative complications following resection for pulmonary tuberculosis at Fitzsimons Army Hospital by Thomas has shown that complications and significant morbidity are no more frequent after short periods of chemotherapy than after prolonged administration¹.

Surgical indications

Our joint Surgical-Medical Board meets weekly to determine if the patients presented should have surgical aid or an additional delay for purposes of accomplishing more essential clinical studies, or a modification or continuation of the medical regimen. This combined board thus serves both as a chest consultation agency and is also considered an

excellent teaching conference with interns, residents, and specialty staff in attendance. The final recommendations on each thoroughly individualized case are made by a well-trained thoracic surgeon, an equally experienced chest internist and the ward physician who has followed and treated the patient. Decision is often not reached until after free discussion by the voting members as well as by physicians and surgeons attending the conference.

If a definite or relative medical contraindication is evident, surgery is seldom recommended, although occasionally the patient's tuberculous residuals may be of the type that the hazard of retaining such dangerous foci may distinctly outweigh an inordinate operative hazard of an immediate nature. We stress individualization of every case and discourage any inclination toward "routine" recommendations unless the patient is an otherwise healthy individual, has received prolonged chemotherapy and has unmistakable pulmonary residuals that meet the criteria for a rather stereotype method of surgical management.

Indications for resection therapy

During the past four years our criteria for resection has been essentially as follows:

CHART 1

Surgical indications after prolonged chemotherapy

(Four to eight months—average six months)
Commonly encountered lesions

1. Cavitory lesions—unquestionably persistent.
2. Cavitory residuals, open or closed (often referred to as "tuberculous abscess"—cavitation apparent only after laminographic studies—may then be equivocal.
3. Large caseonodose residuals (2 cm. or over in greatest diameter).
4. Tuberculous bronchiectasis, localized—severe in upper lobes—moderately severe, middle lobe, lingula and lower lobes.

Regarding item 3 above: In some clinics, the enthusiasm for resection of such filled-in cavities or necrotic residuals seems to be waning. Currently we unquestionably recommend removal of such lesions which are 3-4 cm. or larger in diameter.

CHART 2

Less commonly encountered lesions

1. So-called "destroyed lobe or lung"—involved with bronchiectasis, multiple cavities and extensive fibrosis. It is imperative that preoperative pulmonary function studies be done and properly evaluated. Lung remnants must provide sufficient function for survival. There should be no active disease of surgical significance in remaining lung after pneumonectomy.
2. Chronic relapsing localized disease—considered to have had adequate chemotherapy in the past.
3. Persistently positive sputum—lesion or lesions definitely localized by preoperative clinical studies.
4. Progression of disease under apparently adequate chemotherapy; may be encountered if patient receiving concomitant corticosteroids.
5. Atelectasis and/or tuberculous pneumonia, persistent; single or multiple segments; most often have active bronchial disease as well.
6. Bronchopleural fistulae, secondary to previous excisional surgery; problem usually corrected by completing lobectomy and performing concomitant upper state thoracoplasty.
7. Infarction of adjoining segment or subsegment after pulmonary resection; such complication should be corrected in 10 to 14 days at secondary thoracotomy when removal of infarcted pulmonary tissue is accomplished and pleural tent constructed or an upper stage modified thoracoplasty.
8. The so-called salvage case—patients with extensive unilateral or bilateral disease and associated limited or poor pulmonary function—patient often persistently positive with resistant bacilli. Excisional surgery is often indicated to remove cavitory or bronchiectatic lesions considered responsible for continuous or intermittent positive sputum.

CHART 3

Surgical indications after relatively short periods of chemotherapy

(One to 12 weeks—usually 7-14 days)

1. Solitary or multiple lesions—where definite diagnosis cannot be established. Thoracotomy usually performed after 7-14 days of intensive combined therapy.
2. Pleural effusion—beginning to form fibrothorax—thoracotomy may be required to establish diagnosis. If no demonstrable underlying disease, by roentgenographic studies, decortication is performed after 6-12 weeks of chemotherapy.
3. Relatively localized disease—the suspected site of repeated gross bleeding.
4. Mixed empyema—resulting after spontane-

ous pneumothorax associated with destroyed lung; attempt re-expansion by closed tube method while intensive combined antimicrobials are given for two to three weeks; if pulmonary function studies seem adequate and there is no demonstrable active tuberculous disease in the contralateral lung, then do extrapleural pneumonectomy.

Diagnostic thoracotomy

For many years we have been keenly aware of the value of exploratory or "diagnostic thoracotomy" when intrathoracic lesions defy a definite diagnosis short of such an operative procedure.

During the nine-year period (1947-1955 inclusive), 349 patients treated at Fitzsimons had intrathoracic lesions which defied diagnosis prior to diagnostic and/or therapeutic thoracotomy^{2,3}. It is noteworthy that 90, or 25.7 per cent, of these patients were demonstrated to have active pulmonary tuberculous lesions. The following table gives a broad, generalized, pathologic category breakdown of this exploratory thoracotomy experience:

TABLE 2
Diagnostic pulmonary biopsy experience
(Nine-year period—1947-1955, inclusive)
349 patients

	No. of patients	Per cent
Specific Infections:		
Pulmonary tuberculosis	90	25.7
Fungus diseases (54 histoplasmosis)	95	27.2
Pulmonary infestation (schistosomiasis)	1	
Inflammatory lesions, etiology not established:		
Granulomas, fibrosis and abscesses	61	18.2
Specific pathologic lesions, etiology presently unknown:		
Sarcoidosis, eosinophilic granuloma and pulm. xanthomatosis	26	7.4
Miscellaneous lesions—specific, degenerative, developmental or traumatic:		
Includes cysts (fluid filled), hematomas, lipoid pneumonia and pulmonary infarction	9	2.5
Malignant tumors	57	16.3
Benign tumors	10	2.8

Surgical mortality

Excisional surgery in the management of pulmonary tuberculosis is never considered to be a simple or benign procedure. Five deaths have occurred in our last 500 patients who have had pulmonary and/or pleural resections for proven tuberculous lesions. Three occurred at or shortly after pulmonary resection—one the result of cardiac arrest at the termination of a segmental excision in a 37-year-old female, a 28-year-old male expired on the third postoperative day of ipsilateral staphylococcal pneumonia following right upper lobectomy, and a 28-year-old female having "borderline pulmonary function" expired 36 hours after left upper lobe and superior segmental resection and concomitant thoracoplasty, death resulting from a severe asthmatic episode and pulmonary hypertension. The two late deaths resulted from cor pulmonale; one, a 43-year-old female, two months following left pneumonectomy, and the other, a 28-year-old female, five months after right upper lobectomy and limited concomitant thoracoplasty; four months prior to the surgery on the right she had undergone an upper stage modified thoracoplasty on the left. Thus, in this recent series of 500 patients, the present mortality is 1 per cent; 0.6 per cent being early operative deaths and 0.4 per cent late deaths due to cor pulmonale.

Discussion

At this time the mortality rate following pulmonary resection in the treatment of tuberculosis has reached a very low figure indeed; a rate perhaps never thought possible to attain 10 to 12 years ago⁴. Such is not true when untoward morbidity and complications are estimated after primary surgical measures, although most complications are of little consequence and easily corrected if recognized early and properly managed. Bronchopleural fistula, mixed empyema, operative wound infection, and postoperative spread or dissemination are decidedly on the decrease; thanks to better surgical technics, ample blood to cover operative and postoperative losses, antimicrobial agents, and the proper timing of the primary operative procedure after complete evaluation of the patient as a whole and of such important local pathologic

states as the degree of healing of bronchoscopic viewable segmental bronchial orifices. Presently we are discovering some of the direct and indirect causes of persistent postoperative lung surface leaks and are aware that postoperative infarctions occur much too frequently and may plague the thoracic surgeon. We are fortunate in that we are learning that properly early and aggressive management can cure and thus avert late and more serious complications which in years past often proved fatal.

By and large, we favor the opinions and recommendations of Bell and Medlar, who contend that patients who harbor drug-resistant organisms and are candidates for excisional therapy should have lobectomy or pneumonectomy—thus avoiding segmental or wedge resections⁵. A recent study of our

experience with such problems at Fitzsimons does not conclusively corroborate their views, although we must state that only a small number of our drug-resistant patients had wedge or segmental resections⁶.

Our limited experience in the surgical management of pulmonary tuberculosis in patients who require prolonged adrenocortical steroids, for various clinical reasons, has been discouraging in that two such patients developed extensive pyogenic chest wall infections which required subsequent incisions for adequate drainage; however, the final results have been encouraging. Nevertheless, we recommend that extensive thoracic surgical procedures not be performed on such patients if such can be avoided until cortisone and related hormones have been discontinued for a period of at least four to six months. ●

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Treatment of recurring intestinal obstruction*

Using plication procedure

Edgar J. Poth, M.D., Galveston, Texas

*The author offers a practical solution
to the surgeon who is plagued by
patients with recurrent
intestinal obstruction.*

*This article with its detailed drawings
is recommended to all who may
deal with abdominal adhesions.*

INTRA-ABDOMINAL ADHESIONS are among the serious hazards and complications of mechanical and inflammatory trauma to the

visceral peritoneum. It is impossible to prevent formation of adhesions between damaged visceral surfaces. Formation varies widely and the basic factors which determine formation of adhesions are not known.

Extensive adhesions frequently follow laparotomy and result in repeated attacks of intestinal obstruction. Numerous operations are required to relieve obstructions only to aggravate the situation by further involvement. An abdominal invalid suffers almost continuously from persistent pain and varying degrees of bowel obstruction, accompanied by significant weight loss because of self-imposed restriction of food intake. Eating initiates increased peristalsis and discomfort. Simple, sharp angulation of a loop of bowel of itself does not result in obstruction. Ob-

*Presented at the 56th Annual Meeting of the Wyoming State Medical Society, Jackson Lake Lodge, Moran, Wyoming, June 11-13, 1959.

struction occurs most frequently at a site where a loop of bowel is adherent to the root of the mesentery or to a rigid structure deep in the pelvis. The sharp angulation and compression caused by the pressure of the mesentery and rigid pelvic structures seem to favor massive proliferation of adhesions. Edema at such a site readily blocks a compromised lumen, increases the lateral pressure and initiates a vicious cycle.

While reformation of intra-abdominal adhesions cannot be prevented, the site of their formation can be controlled. Noble (1937) described a technic of sewing loops of bowel together, called "plication," which converted uncontrolled adhesion formation to "controlled" formation to prevent subsequent obstruction. This procedure prevents the wall of bowel from becoming attached at the root of the mesentery.

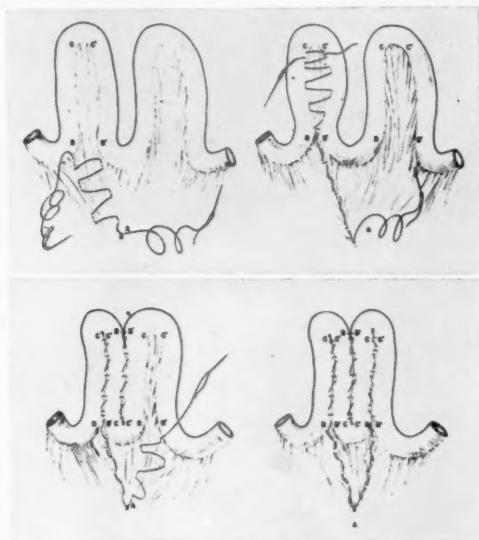


Fig. 1. Illustrating the steps in plication. A double length of 4-0 chromic catgut is placed and tied at A at base of the root of the mesentery. The suture is extended up to B-B', pulled up and tied in continuity. The suture is continued along the bowel to C-C', pulled up and tied.

Freeing of adhesions

The entire small bowel is freed of adhesions. All adhesions must be taken down. Lysis of adhesions is time consuming and tedious. Most adhesions between loops of bowel can be separated easily and rapidly by

blunt finger dissection with the least trauma or likelihood of opening into the bowel.

Heavy adhesions, especially those to the root of the mesentery and rigid structures of the abdomen and pelvis, will require division by sharp dissection. Effective use of finger dissection shortens the procedure considerably. The entire small bowel can usually be separated in 30 minutes. The freed loops of bowel are returned to the abdomen immediately. The patient withstands the procedure well. The bowel is redelivered into the wound as it is plicated, and the plicated loops are kept well covered. When completed, the plicated mass of bowel is returned to the abdomen. There is no danger of strangulation by rotation of this mass of small bowel on its narrow mesenteric base, because it will become fixed by fibrinous adhesions long before the bowel has recovered from the paralytic ileus which persists for about 48 hours postoperatively.

Preoperative preparation of the patient

The degree of small bowel obstruction modifies the preoperative preparation, and follows the scheduled outlined by Poth in 1957. If signs and symptoms of strangulation are absent, gastric suction is instituted, and an attempt is made to decompress the abdomen. It is hoped to return the patient preoperatively to a low residue diet and administer neomycin-sulfathalidine combination to eliminate the intestinal bacteria. The intestinal antiseptics are used as a precaution against soiling following the inadvertent opening of the bowel. Not infrequently these patients are completely obstructed and do not resolve under conservative gastric suction. They may present signs and symptoms of strangulation. Immediate exploration is then undertaken without special preoperative preparation, except rapid correction of dehydration, electrolyte depletion, fluid balance and anemia.

During an emergency operation, the distended bowel may be opened accidentally. In this event, the opened segment is transferred to a sterile wash basin and quarantined from the remainder of the operative field by sterile drapes. The short length of bowel, including the vent, extends between the folds of the drapes into the wash basin.

One member of the surgical team handles the bowel in the contaminated area. The other members manipulate the distended bowel to evacuate the entrapped liquid and gas with a minimum of trauma. At the termination of this maneuver the contaminated portion of bowel is sponged off with one-half per cent neomycin solution, covered with a pack moistened with a one-half per cent neomycin solution and returned to the sterile field. Appropriate occluding clamps are immediately applied and the entire small bowel flooded with one per cent neomycin injected through a small needle into the lumen. As much as a litre of one per cent neomycin solution may be used. If the defect in the bowel is too large to permit closure, reconstruction is effected as indicated in Figs. 2 and 3.

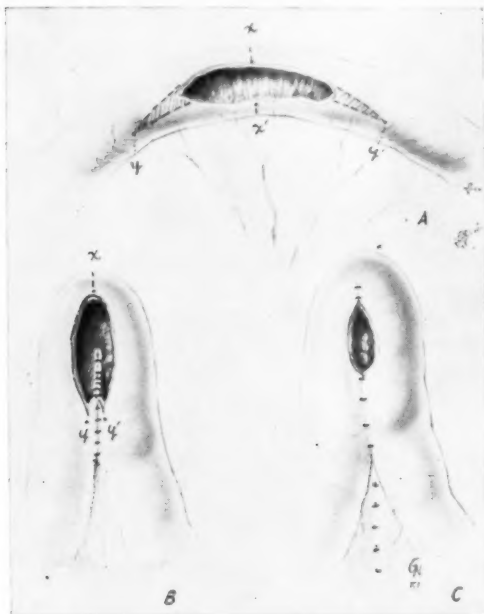


Fig. 2. Illustration of the method of closing a long defect in the bowel without resection. The defect may be enlarged, as indicated in A, when it is necessary to obtain a sufficiently long stoma. B shows the two posterior rows of sutures in place. The bowel has been folded on itself around points x x'. C shows the incomplete anterior suture. The choice of suture is left to the individual surgeon. Note that a locked stitch should not be used to suture bowel, because it results in pressure necrosis under each locked loop of the suture. (From Poth: A Method of Closing Defects in Bowel, S. G. & O., 93:606-608, 1951.)

Should bowel need to be resected, it is clamped within the area which will be sacrificed and the damaged segment resected. The dilated proximal segment is decompressed and flooded with one per cent neomycin. The selected site for reanastomosis is

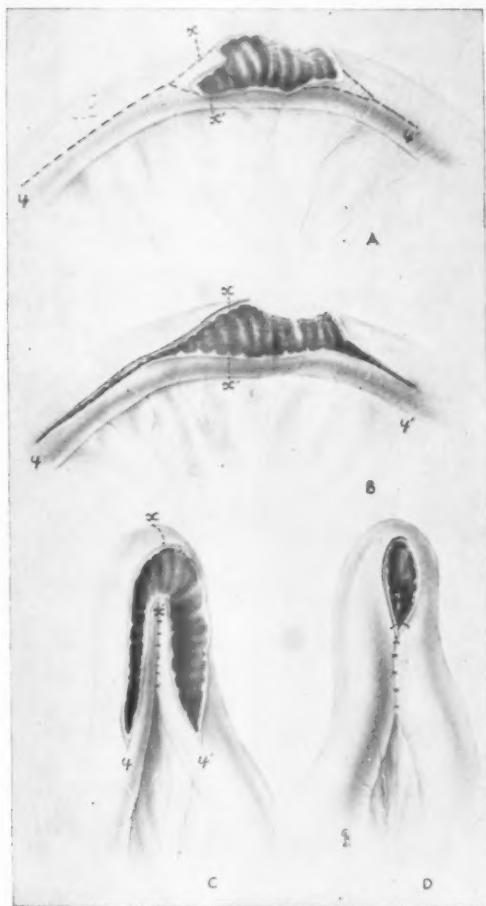


Fig. 3. An extensive, ragged defect involving more than half the diameter of the bowel. The traumatized edges of the defect are trimmed as indicated in A and B. The bowel will be folded or plicated on itself around points x x'. It will be noticed that a long incision is made to point y. The points x x' are selected so as to give the full diameter of one limb of the bowel for filling in the defect at its greatest extent. C shows the approximation of points y and y' and the placement of the outer posterior row of interrupted sutures. The inner posterior row is placed before beginning the anterior closure. D shows the incomplete anterior row of sutures. (From Poth: A Method of Closing Defects in Bowel, S. G. & O., 93:606-608, 1951.)

prepared for resection, clamped with beveled clamps (Poth, 1943) and additional tissue removed. The anastomosis is done using the technic illustrated in Figs. 4 and 5, unless edema of the viscus precludes bowel suture. The anastomosis is covered by plication. Post-operatively, gastric suction will be required by most of these patients for considerable periods. Suction is continued until the patient passes flatus or has a bowel movement.

No special procedures are instituted to increase peristalsis immediately postoperatively. A significant number of patients will

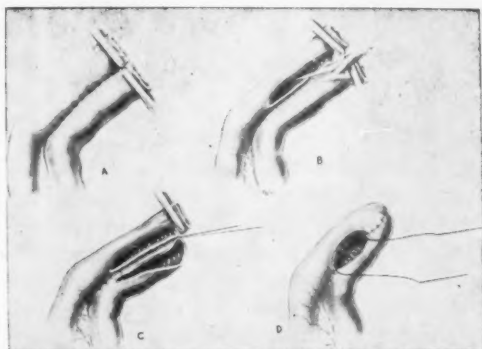


Fig. 4. Illustration of the technic applied to a blind double-ended anastomosis. (From Poth: *A Technic for Suturing Bowel*, S. G. & O. 91:656-659, 1950.)

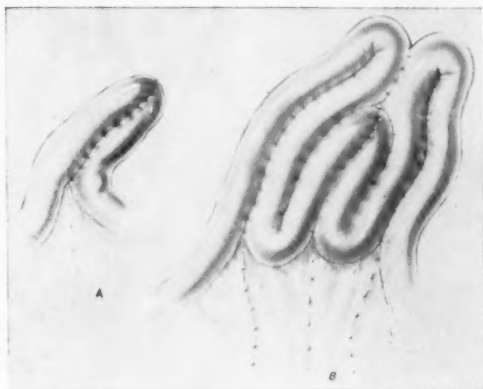


Fig. 5. A demonstration of the technic illustrated in Fig. 4 being applied to anastomosis of the small bowel coupled with plication of damaged loops of bowel to control formation of adhesions and reduce hazard of intestinal obstruction. Following completion of an anastomosis as illustrated in Fig. 4, adjacent loops of bowel are plicated. The end of the anastomosis is used as the apex and starting point for the plication. (From Poth: *A Technic for Suturing Bowel*, S. G. & O. 91:656-659, 1950.)

show signs and symptoms of intestinal obstruction for periods varying from a few days to as long as four weeks. These symptoms have invariably cleared. In no instance has it been necessary to reoperate upon any of these patients because of obstruction in the plicated portion of the bowel. Rarely re-exploration was needed because of evidence of partial obstruction several months after the initial procedure, but the recurring obstruction in each instance occurred in a segment of bowel not plicated.

Improved outlook

The plication procedure has significantly changed our attitude toward the prognosis following operation on patients with multiple intra-abdominal adhesions. All adhesions are lysed not infrequently, including the entire jejunum and ileum. Ordinarily, however, the proximal jejunum is clear. The almost complete freedom of postoperative complications is a welcome and unexpected surprise. Post-operative difficulties with recurrence of obstruction requiring reoperation was feared. This occurrence has not been our experience.

The previous hopeless attitude towards the so-called abdominal invalid is now one of confidence since remedy is so consistent. Credit for this procedure is due Dr. Thomas B. Noble, Jr., who described the procedure in 1937. My interest in this method of management of extensive intra-abdominal adhesions followed the description of the method by Lord, Howse and Jolliffe in 1949.

The greatest postoperative difficulty is the recovery from morphine addiction acquired during the preceding years of abdominal discomfort. It is significant that in this series of 120 patients subjected to the procedure, not

TABLE 1
Age distribution of patients subjected to the plication procedure.

Age	Percentage
0-10	10
10-20	6
20-30	8
30-40	23
40-50	29
50-60	16
60-70	8

a single recurrence of obstruction has occurred in an area plicated, extending over a period of observation of 10 years.

Conclusions

Boldness should be exercised in the application of this procedure. All adhesions should be lysed, and bowel denuded of its serosa should be incorporated in a plication. On oc-

casional, recovery has required four to six weeks but invariably the bowel has returned to normal function. The proper application of the Noble plication principle of converting uncontrolled adhesions to controlled adhesions gives an excellent solution to a severe complication and saves the abdominal invalid from a continuing life of uncertainty and suffering. •

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Complications of tracheostomy*

O. J. King, Jr., M.D., and W. W. Glas, M.D., Eloise, Michigan

*When done early and carefully
with perfect hemostasis and
good postoperative care,
complications should be rare.*

TRACHEOSTOMY IS AMONG THE OLDEST of operations. Asclepiades described tracheostomy as a means of relieving upper respiratory obstruction in 124 B.C. However, the first documented tracheostomy was performed by Brassavola, an Italian surgeon, in 1546^{1, 2}. It was considered hazardous, and was rarely performed before the middle of the nineteenth century. Its use was reserved for respiratory obstruction. The concept of tracheostomy as an elective procedure has gained acceptance only in the past few years³. Reluctance of some physicians to accept this concept may be partially based on fear of the complications. The purpose of this investigation was to determine, first, the complications of tracheostomy; second, their frequency; and, third, methods of preventing these complications.

Over-all results

A review of tracheostomies performed at our hospital showed that 19 complications

occurred in the 78 tracheostomies done in the past year. This is an incidence of 24 per cent. The complications encountered are shown in Fig. 1: Hemorrhage, recurrent respiratory obstruction, tracheo-bronchitis, pneumothorax, tracheo-esophageal fistula, apnea, and shock. These are listed in their order of relative frequency.

Of the tracheostomies performed, 59 were done under elective conditions in the operating room. Nineteen were done as emergency procedures at the bedside or in the emergency room. The advantages of the operating room are obvious. The difference may be measured objectively by a comparison of

Complications of TRACHEOSTOMY	
Hemorrhage at operative site, aspiration of blood	7
Recurrent respiratory obstruction	4
Ulcerative tracheobronchitis	3
Pneumothorax	2
Tracheo-esophageal fistula acute:operative chronic:pressure	2
Apnea - Shock - Death	1

Fig. 1. Complications of tracheostomy.

*Presented before the Midwinter Clinical Session of the Colorado State Medical Society, February 19, 1959. From the Department of Surgery, Wayne County General Hospital, Eloise, Michigan.

complications. Complications developed in 42 per cent of those patients experiencing tracheostomies under emergent conditions. Only 19 per cent developed complications when the operation was done as an elective procedure.

Hemorrhage and ulceration

Hemorrhage at the operative site with aspiration of blood was our most frequent complication. Tracheostomies were frequently done on patients who were hypotensive. Small vessels were not evident and, hence, not ligated. With supportive care the blood pressure increased and these vessels began to bleed. Blood aspirated into bronchi clots to form plugs with subsequent atelectasis. In addition, it is an excellent culture medium. When this complication occurs, hemostasis must be accomplished immediately since the respiratory function will be further compromised. Hemostasis is best accomplished in the operating room.



Fig. 2. Hemorrhage into tracheobronchial tree.

Focal ulceration of tracheal mucosa and inflammatory infiltration in the submucosa is produced by contact with a tracheostomy cannula in as little as 20 hours. Such changes are obviously inevitable. However, this is minimized by the use of the correct cannula and by frequent replacement of the cannula with removal of all irritating crusts. A correct fit is especially important in children. A cannula that is too long may rest on the

carina and produce persistent coughing and ulceration.

Tracheobronchitis and obstruction

Incorrect suctioning technic may cause extensive damage to the tracheobronchial mucosa with consequent severe tracheobronchitis. The character of the aspirated secretions may furnish the first clue that the suction technic is incorrect. Correct suctioning technic is demonstrated in Fig. 3. The use of a Y-tube to break the negative pressure of up to 20 pounds is mandatory to avoid denuding tracheobronchial mucosa. In addition, distressing dyspnea is averted by limiting suction to five-second periods.

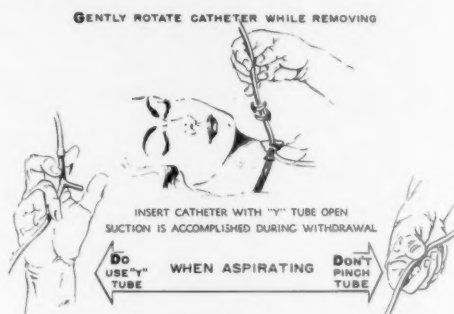


Fig. 3. Correct tracheal toilet technic.

The next most common complication was recurrent obstruction. Its most common cause was inspissated secretions in the inner tube. When the inner tube is not replaced, secretions accumulate at the tip of the outer tube. This requires replacement of the entire unit which may be difficult before a tract is well established. In one case, recurrent obstruction was related to excessive drying of secretions caused by the high air flow of an automatic respirator. Studies are being initiated to work out better methods of preventing excess drying of secretions. It is our hope that this will minimize recurrent obstruction due to crust formation.

A more subtle form of obstruction occurred when the cannula was dislocated. This can occur when the tracheal incision is incorrectly placed. Low incisions have been made to avoid an unusually large thyroid isthmus. Lateral tracheal incisions have been made when the trachea was rotated due to enthusiastic retraction by an assistant. Post-

operative flexion of the neck then dislocates the cannula out of the trachea. Allowing inexperienced persons to change cannulas may result in incorrect positioning as shown in Fig. 4. Partial compression of the trachea occurs which further compromises an already obstructed airway. This situation usually goes unrecognized until respiratory distress is marked. The thyroid isthmus should be divided when necessary. Careful midline dissection with gentle retraction will avoid lateral incisions. Reinsertion of the cannula should be performed in the operating room when possible, particularly if necessary in the immediate postoperative period.

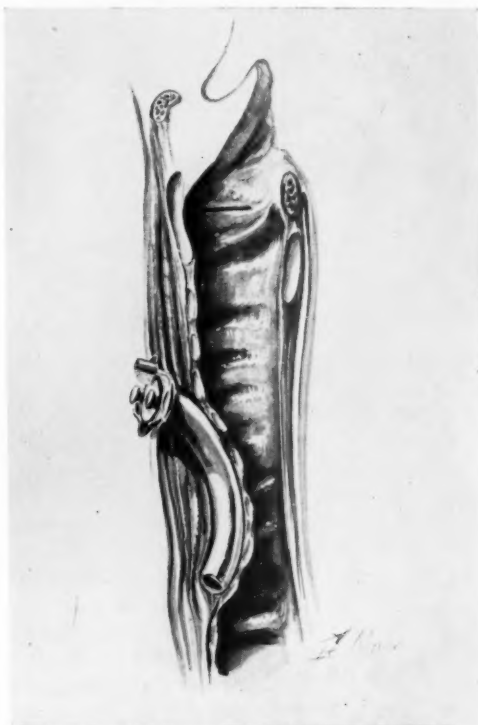


Fig. 4. Dislocated tracheostomy cannula.

Fistula and pneumothorax

Tracheo-esophageal fistula is a serious complication. This occurred as an early and as a late complication. Acute tracheo-esophageal fistula occurred due to penetration of the posterior wall. This can be avoided by the use of a No. 12 blade which has a concave cutting edge or the finger may be used as a

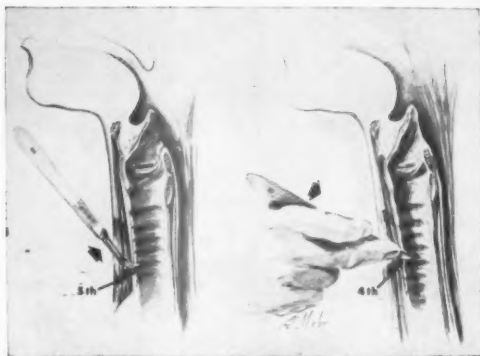


Fig. 5. Incision in anterior trachea. Minimum cutaneous scar follows transverse, rather than vertical, incision.

guard to prevent deep penetration when using a standard blade. These techniques are illustrated in Fig. 5. One tracheo-esophageal fistula occurred due to pressure necrosis by the cannula against the "party wall." This can be avoided by frequent changes of the cannula. Intermittent use of the next smaller cannula changes the pressure point and reduces the danger of necrosis.

Pneumothorax following tracheotomy is a frequently reported complication. This occurred, in our experience, one time. This may be even more common than reports indicate, since postoperative chest x-rays are not routine. Operative trauma to the pleural domes is the most likely cause. This should be avoidable in most cases by strict midline dissection. This complication does occur, however, even with good technic and a routine postoperative chest x-ray insures its early recognition. Prompt therapy may be life-saving.

Shock

Shock and death as a complication following tracheostomy occurred and has been reported by others. It is known that prolonged asphyxia renders the respiratory center insensitive to carbon dioxide stimulation and respiratory cycle then is dependent upon the carotid body which is stimulated by anoxia⁴. When anoxia is corrected by tracheostomy, the respiratory cycle is deprived of its stimulus and apnea ensues. This apnea may be transient or prolonged, depending upon the severity of the preceding hypercapnia and anoxia. If untreated, the resultant continued

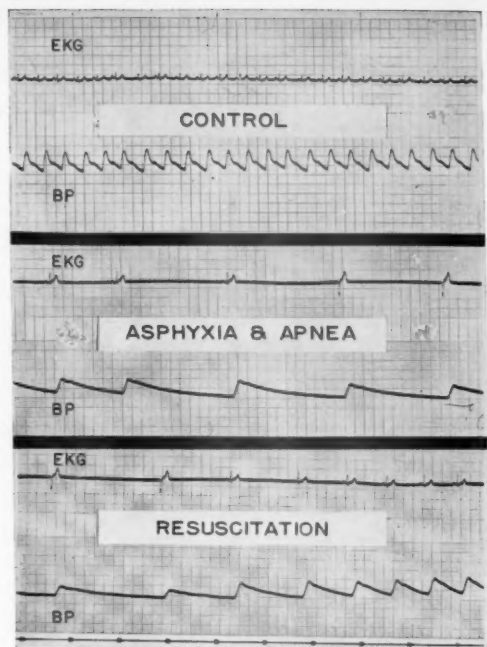


Fig. 6. Asphyxia and apnea.

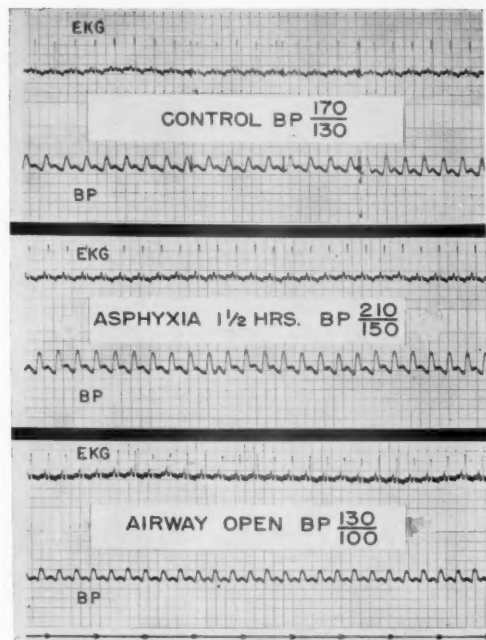


Fig. 7. Pressor response to hypercapnia.

apnea is fatal. We have demonstrated this in dogs and have shown that positive pressure oxygen is therapeutic even when marked electrocardiographic changes are present. Electrocardiographic and arterial pressure changes with continued apnea following severe asphyxia are shown in Fig. 6. There was a return to normal with positive pressure oxygen. A small endotracheal tube that fits in the tracheostomy cannula, and an anesthesia machine provide an efficient means of oxygenating the patient until spontaneous respirations return.

We have been unable to find any previous specific description of another important cardiovascular mechanism which also may be a cause of this syndrome of hypotension and death. Carbon dioxide excess in arterial blood regularly results in an elevation of blood pressure due to action on the medullary centers. A sudden decrease in the blood carbon dioxide level results in hypotension⁴. This may be demonstrated in the laboratory. Fig. 7 shows the blood pressure rise following partial obstruction of the airway and subsequent drop when the airway was re-established. Clinical conditions that ordinarily produce shock, such as hypovolemia, may be present in a patient receiving tracheostomy. Normotensive readings may be due to the increased levels of blood carbon dioxide. With a drop in the blood carbon dioxide level, subsequent to the establishment of an airway through the tracheostomy, shock becomes evident. This complication usually occurred in patients with prolonged respiratory obstruction. Intravenous fluids, including blood and vasopressors, have been effective in treating this syndrome.

Summary

In summary, we have reviewed tracheostomy with regard to its frequency and its complications. We believe tracheostomies should be performed early enough to permit the procedure to be done in the operating room.

Careful operative technic and hemostasis combined with good postoperative care will result in fewer complications. In addition, we have offered an explanation for the puzzling syndrome of apnea, shock and death following tracheostomy. ●

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Problem of esophageal hiatal hernia*

David E. Dines, M.D., and Hobart M. Proctor, M.D., Denver

*The why and wherefor and what to do
about a not uncommon
medical-surgical problem.*

ESOPHAGEAL HIATAL HERNIA is a frequent finding during gastrointestinal roentgen examinations. Up until 1931, only 44 cases had been diagnosed during lifetime. The diagnosis is made by a roentgenogram of the stomach after a barium swallow with the patient in the Trendelenburg position. A hiatal hernia, associated with reflux esophagitis, renders the esophagus irritable, and there is diffuse spasm in the esophagus which may be clearly demonstrable on the roentgenogram after thick barium.

Hiatus hernia is so common in patients over 60 years of age that all routine upper gastrointestinal studies should include this particular view. The incidence varies from 1.3 to 10 per cent. Bride and Amory found an incidence of 1.3 per cent in 300 asymptomatic men over the age of 50. Portis and King found an incidence of 7.2 per cent in their series of cases over the age of 60. Hiatus hernia is most common among patients who are overweight and between the ages of 40 and 70 years. Mobley and Christensen in their series at the Mayo Clinic found that 60 per cent of hiatal hernias were in women.

Newer technics with esophageal motility and pressure studies have provided tremendous strides in our knowledge of the esophagus in normals as well as in patients with hiatal hernia, scleroderma, and amyotrophic lateral sclerosis. The recent physiologic motility and pressure studies have demonstrated a sphincter-like mechanism of the muscle of the lower end of the esophagus which appears to play an important part in preventing the acid reflux.

Etiology

The etiologic factors in the development of esophageal hiatal hernia include trauma to the chest and abdomen and other conditions that increase the intra-abdominal pressure such as ascites, obesity, pregnancy, the wearing of a tight girdle, and a chronic cough. Rarely hiatal hernia may be of a congenital nature. The older age groups are more prone to develop a hiatal hernia because of a decrease in the elastic tissue at the hiatus.

Symptoms

Many esophageal hiatal hernias are asymptomatic and are demonstrated on an upper gastrointestinal series when the patient's symptoms are entirely functional. Occasionally a hiatus hernia may cause gastrointestinal bleeding with hematemesis and melena or just a hypochromic anemia. Hemorrhage was found to be a complication in 18 per cent of the cases of hiatal hernia in one series in which there was no associated gastroduodenal ulcer.

The symptoms from hiatal hernias usually come from the esophagus, and the pain of esophageal origin has been described as burning and squeezing, associated with a sensation of fullness. The pain is characteristically located substernally and in the left chest, and extends into the neck, shoulders, and arms and between the shoulder blades. Dysphagia is common, and usually there is a history of regurgitation and belching when bending or stooping. The pain may be associated with swallowing but not always. Frequently the pain and fullness may awaken the patient from sleep. In the prone position there is gas and heart burn, and belching is particularly liable to occur if the patient rolls on his left side. Air swallowing, usually a symptom of

*References are available but have not been included because of space limitations.

functional dyspepsia, is present with reflux esophagitis and frequently indicates its presence.

Pathologic physiology

Barrett has emphasized that the abdominal pressure from below with the negative pressure from above predisposes to the formation of a hiatus hernia. Esophageal hiatal hernias are frequently complicated by a certain amount of reflux esophagitis or even by peptic ulceration at the esophagogastric junction. The esophagitis accounts for the burning pain from regurgitation of acid gastric contents through the incompetent cardiac sphincter. The values for gastric acidity were recorded in 61 cases in one series, and were elevated in 43, normal in 16, and there was an absence of free HCl in two. Whenever the esophagogastric junction is elevated above the diaphragm, the sphincter mechanism is lost. There are three factors that normally maintain a competent gastric cardia: (1) the acute angle made by the esophagus and the gastric lesser curvature, (2) the lower esophageal sphincter, (3) the diaphragmatic pinch-cock mechanism. The squeezing type of pain has been attributed to distention of the gastric pouch above the diaphragm.

Distention of the stomach above the diaphragm by means of a balloon can cause pain identical to the pain of coronary insufficiency with electrocardiographic evidence of ST and T wave abnormalities of an ischemic nature. The substernal pain can occur with walking. Donnelly has postulated that the pain occurring with walking is due to esophageal contraction in an effort to overcome the increased intra-abdominal pressure. The intra-abdominal pressure increases the intraluminal pressure in the esophagus because the cardiac sphincter is incompetent in hiatal hernias. Walking fast causes contraction of the abdominal musculature and increases the intraluminal pressure in the esophagus, overdistending it. The overdistention is painful and accounts for the pain that can occur in hiatal hernias with exertion that may be identical to the pain pattern of angina pectoris.

Hiatal hernia is believed capable of cardiac arrhythmias by vago-vagal reflexes. The pain distribution is believed to be dependent

upon viscerocutaneous reflexes. Thoracic pain may occur with cardiospasm without evidence of hiatal herniation. The spasm occurs before the esophagus becomes dilated and the esophageal musculature atonic. Mecholyl chloride has been administered to patients with cardiospasm to increase the intra-esophageal pressure. The thoracic pain can be reduplicated and the intra-luminal pressure is directly proportional to the severity of the pain.

Value of esophagoscopy

Endoscopy permits the disclosure of the presence and nature of disease of the mucosa in the esophagus and in the herniated segment of the stomach. Endoscopy was performed in 107 cases of esophageal hiatal hernia, and in three cases gastric ulcers were found in the herniated portion not demonstrated on upper gastrointestinal series. Esophagoscopy is indicated in selected cases when the roentgenogram is inconclusive and to exclude a malignancy in addition to the hiatal hernia. Carcinoma of the gastric cardia has been shown to precede the formation of hiatal hernia, followed by reflux contraction of the esophagus and development of the hiatal hernia. It has been shown also that there is an increased incidence of esophageal carcinoma in cardiospasm. Symptoms from cardiospasm may simulate carcinoma and, without the benefit of esophagoscopy, the clinician may feel a false sense of security, considering it a benign lesion until too late for effective treatment.

Types of esophageal hiatal hernia

There are three main types of esophageal hiatal hernias (Fig. 1) as distinguished by

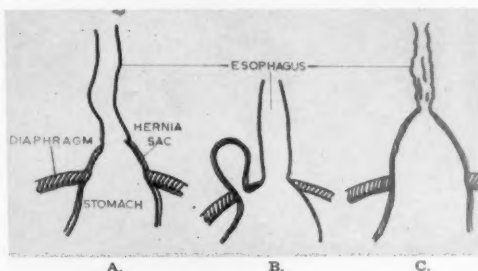


Fig. 1. Schematic representation of three most common forms of hiatal hernia. (A) Sliding; (B) Para-esophageal; (C) "Short" Esophagus.

the roentgenologic examination and esophagoscopy: (1) the sliding type of hiatal hernia (Fig. 2) in which the esophagogastric junction is located above the level of the diaphragm, but capable of sliding back and forth to the level of the esophageal



Fig. 2. Roentgenographic demonstration of sliding hiatal hernia. Arrow indicates gastric ulcer in herniated cardia.



Fig. 3. "Short" esophagus form of hiatal hernia. Note shrunken, distorted esophagus secondary to protracted esophagitis.

hiatus; (2) the short esophagus type (Fig. 3) in which the esophagogastric junction is above the diaphragmatic hiatus and cannot be extended downward; (3) the para-esophageal hiatal hernia (Fig. 4) in which a pouch of stomach protrudes through the hiatus around or beside the esophagus. Fig. 5 demonstrates an extreme form of hiatal hernia in which the entire stomach is above the diaphragm.

A rare form of hiatal hernia is the compound diaphragmatic hernia in which more than one organ has herniated through the involved foramen.

Sliding esophageal hiatal hernia

This is the most common variety and the one most amenable to medical management. Conservative treatment should be tried in all cases of sliding esophageal hiatal hernia, and surgery reserved for the rare case that does not respond, and for uncontrollable anemia and stricture formation. Patients with this common variety should be instructed carefully as to the etiology of their symptoms, and reassured concerning their cardiac status. Reduction of weight is one of the most important measures. The diet should be a bland, weight reduction type of diet. If there is an



Fig. 4. Upper gastrointestinal visualization revealing large para-esophageal herniation of stomach through diaphragm. Operative intervention to prevent strangulation is usually indicated in this form.

associated peptic esophagitis, they should be placed on antacids before and after meals and at bedtime and antispasmodics before meals and at bedtime. The head of the bed should be elevated six to eight inches or the patient must be taught to sleep with his shoulders propped up on several pillows. The patient is taught never to lie on his right side. Large meals should be avoided, and particularly the evening meal should be small and bland. Alcohol should be discouraged, especially if there is a co-existing esophagitis. Tight garments such as corsets and girdles should not be worn, and heavy lifting avoided to minimize the forceful protrusion of the stomach upward through the hiatus.

Studies fail to indicate that there is much tendency to worsen with the passage of years in the average patient with this type of hernia.

Short esophagus type of hernia

In this type of hiatal hernia, the esophagus is shortened either on a congenital basis or from shortening due to fibrous scarring. It seems doubtful whether very many of this type are actually congenital but rather from shortening due to the associated esophagitis.



Fig. 5. Extreme form of hiatal hernia in which entire stomach is above diaphragm. Usually the result of trauma, this ectopia may follow excessive stretching of esophageal hiatus by increasing intra-abdominal pressure over extended period.

Para-esophageal hiatal hernia

In para-esophageal hiatal hernias, the cardia retains its normal position below the diaphragm and esophagitis does not occur. The treatment of para-esophageal hiatal hernias is surgical, as incarceration or strangulation of the stomach or other abdominal organs may occur, and bleeding is more common in this type of hernia.

Associated conditions

The most frequent associated lesion in patients with esophageal hiatal hernias is a peptic ulcer. Twenty out of 120 patients in one large series studied with medical management had peptic ulcers in the stomach or duodenum. There were two ulcers in the stomach and 18 in the first portion of the duodenum. Biliary tract disease and coronary atherosclerosis are also frequently associated with hiatal hernias. Electrocardiographic evidence of coronary atherosclerosis was demonstrated in five of 13 patients in one series.

Surgical repair

It is not within the scope of this paper to go into the regional anatomy.

Surgical treatment of hiatal hernias dates back to Harrington's series of 60 cases in 1933. Many subsequent papers have elaborated and clarified the surgical role in the management of hiatal hernias. Prior to 1951, and Allison's excellent physiological and anatomical description of an operative technique to restore the esophagogastric angle, and the pinch-cock action of the right diaphragmatic crus, the operative approach was that of diaphragmatic immobilization. This operation not only did little to correct the underlying problem of gastric herniation, but further incapacitated those persons in their declining years who could ill afford to lose the respiratory function deprived them by loss of diaphragmatic excursion on one side.

Whether Allison's operation is performed through an abdominal or thoracic route is not pertinent to this discussion. Both approaches have much to recommend them, and the operation must be individualized. Such factors as concomitant abnormalities, body build, width of the costal arch, etc., will influence the operator in a given case. It suffices to say

that the consequences of the intractable or medically unmanageable hiatal hernia far outweigh, in severity, the operative risk.

Harrington and Kirklin have presented excellent evidence that hiatal hernias have a marked tendency to increase in size. This is very likely the result of loss of muscle tone plus an increase in intra-abdominal pressure accompanying the visceral deposition of fat characteristic of advancing years. The additional hazards of either insidious and chronic bleeding, or frank hemorrhage necessitating emergency and poorly tolerated operations would recommend vigorous and competent medical management and early surgical intervention in those instances which escape conservative therapy. The additional and not inconsiderable danger attendant with esophageal strictures and frequent dilations would emphasize the urgency of the therapeutic points noted above.

Blades and Hall have noted a 45 per cent incidence of serious complications in inadequately managed hiatal hernia, but an operative mortality of only 1.5 per cent in patients whose ages ranged from 32 to 79 years. The oft noted advantages of modern opera-

tive technics, anesthesia, and blood replacement have effected the same healthy improvements in the operative intervention of hiatal hernia as in other areas.

Summary

The problem of esophageal hiatal hernia has been reviewed.

The prognosis with benign sliding esophageal hiatal hernia is good in most cases, and patients remain fairly symptom free on conservative management. The medical program has been outlined.

A small percentage of patients will have intractable pain and associated esophagitis complicated by hemorrhage or stricture. Surgery may be considered for this group of patients, and for those patients with an ulcer of the stomach or duodenum who characteristically do poorly on medical management.

Those cases which respond poorly or develop any of the serious complications previously alluded to must be regarded with the same concern as the bleeding duodenal ulcer and combined medical and surgical opinions obtained so as to not allow the unnecessary demise of patients who might otherwise be restored to useful existence. •

Treatment cont. from page 36

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A.M.A. Fifty Year Club

Dr. J. H. McCurry, of Cash, Ark., advises that he has the approval of the American Medical Association to organize a Fifty Year Club within the A.M.A. Dr. McCurry is anxious to hear from physicians who have been in practice 50 years or more who desire to become members of this club, giving their name and a complete address.

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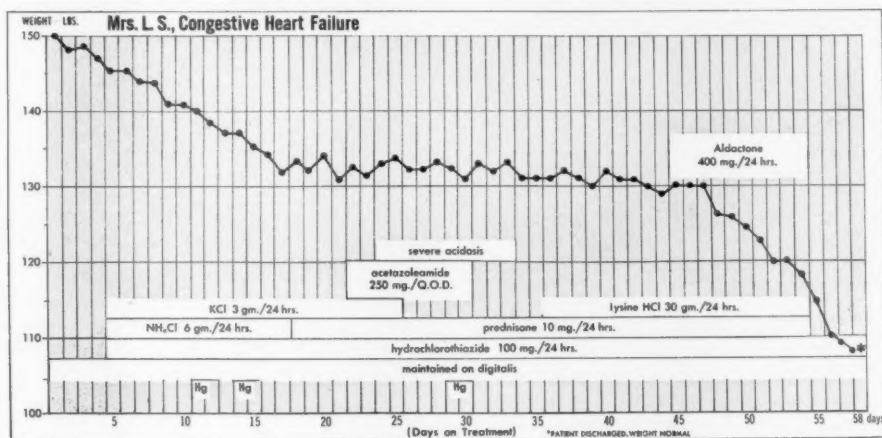
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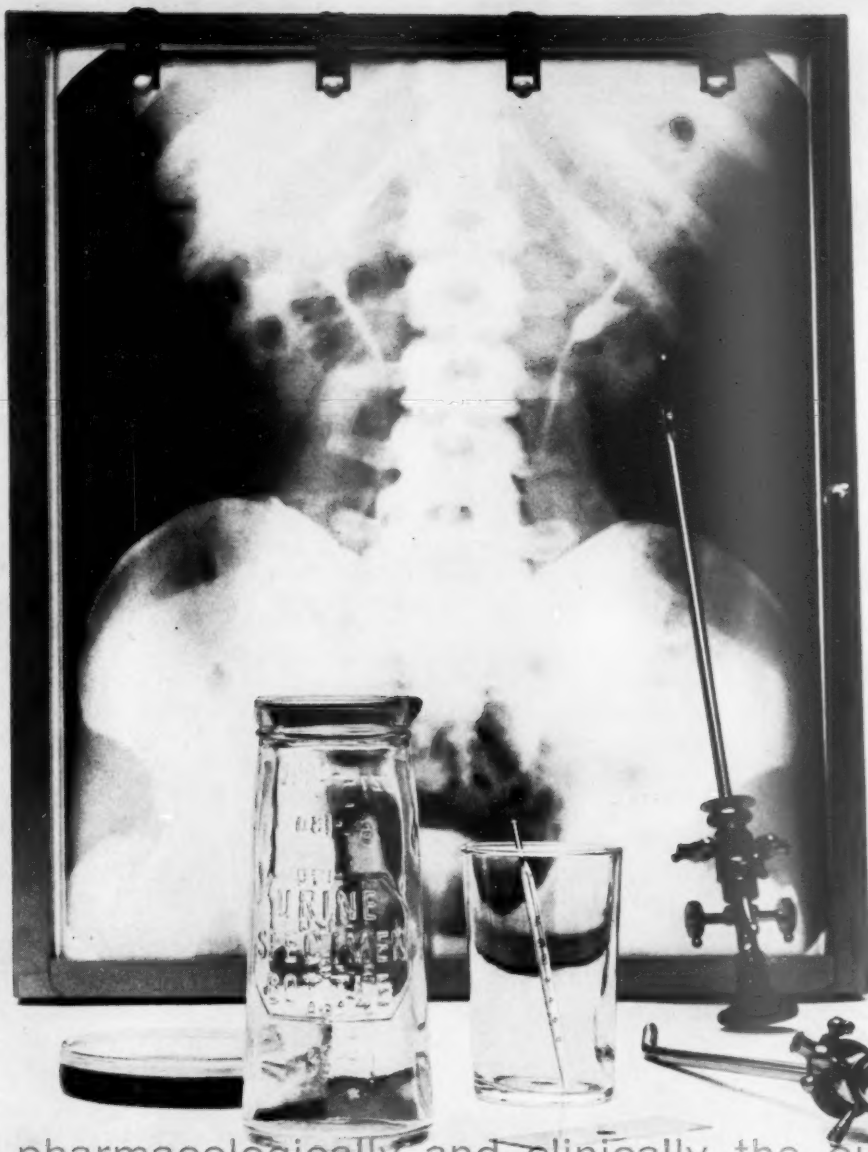
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Dietary Linoleic Acid and Linoleate—Effects in Diabetic and Nondiabetic Subjects with and without Vascular Disease

A paper by Laurance W. Kinsell, M.D., et al., excerpted from *Diabetes—The Journal of the American Diabetes Association*, May-June 1959

“Linoleic acid as the major ‘hypcholesterolemic agent’ in vegetable fats. The question has been raised as to the mechanism of lowering of the plasma lipids by a variety of vegetable fats. Among the entities present in or absent from vegetable fat which have been considered are: (a) the absence of cholesterol; (b) the presence of certain vegetable sterols; (c) the presence of certain vegetable phospholipids; (d) the nature of one or more of the fatty acids present; (e) the presence of trace materials.

...in the diet

The absence of cholesterol has been excluded as a major factor.^{5a} Phospholipids, if they contain a sufficient quantity of unsaturated fatty acids may produce a striking reduction. In our experience thus far saturated phospholipids fail to produce such an effect.⁷

Beveridge and his associates believe that vegetable sterols, particularly beta-sitosterol, are responsible to a significant degree for the cholesterol-lowering effect.⁸ In our experience the vegetable sterols have a relatively weak and unpredictable effect of this sort.

Since the fatty acids of animal fats are predominantly saturated, and the fatty acids of most vegetable fats are predominantly polyunsaturated, with linoleic acid as the major component of the vegetable fats which lower cholesterol and other lipids, the question arises whether linoleic acid per se is capable of lowering plasma lipids. As reported previously⁷ this is indeed the case. In a recent study in a young male with peripheral atherosclerosis in association with elevation of plasma cholesterol and of total lipids, ethyl linoleate produced a greater fall in the plasma lipid levels than had moderate amounts of natural sources of unsaturated fat. Linoleic acid, therefore, appears to be the most important single lipid-lowering component of vegetable fat.

* * *

Significantly higher levels of cholesterol were observed during oleate administration than during administration of equal amounts of linoleate.

The relatively low cholesterol values during the second oleate period may have been related to linoleate stored in fat depots. The fatty acid composition of the cholesterol esters reflected the fat which was fed, i.e., the mono-enoic[†] acid content averaged more than 40 per cent during oleate feeding and less than 20 per cent during linoleate ingestion. Essentially, a mirror image of this resulted during linoleate feeding, at which time di-enoic acid predominated.

* * *

The data presented in this paper appear to establish that linoleic acid administered either as purified ethyl ester or as naturally occurring fat, in sufficient quantity, in properly constructed diets, will reduce plasma lipids to normal levels. The amount of linoleic acid required appears to bear a direct relationship to the amount of saturated fat included in the diet. Linoleic acid requirement may also bear a significant relationship to the amount of atherosclerosis present.

The transition from evaluation of the effect of dietary entities upon plasma lipids, to the evaluation of the effect of such materials upon vascular disease is difficult. However, such evaluation is not impossible. The requisites are adequate measuring sticks and well-controlled studies of sufficient duration. The duration of observation of effects of unsaturated fat in diabetic and nondiabetic patients with vascular disease is in no instance more than five years, and in the majority of instances, less than three. Our present impression is that improvement has occurred in some patients with atherosclerosis and with diabetic retinal and renal disease which was more than we would have anticipated in terms of the natural course of the disease. However, since it is well known that major fluctuations in these diseases can occur in individuals receiving no treatment, we believe it is appropriate at this time to say that no untoward effects appear to result when one prescribes diets containing large amounts of unsaturated fat for patients with such diseases, and it is not impossible that beneficial effects may be associated with such diets.⁹

* * *

5a Kinsell, L.W., Partridge, J. W., Boling, L., Margen, S., and Michaels, G.D.: Dietary modification of serum cholesterol and phospholipid levels. *J. Clin. Endocrinol and Met.* 12:909, 1952.

7 Kinsell, L. W., Friskey, R., Splitter, S., Michaels, G. D.: Essential fatty acids, lipid metabolism, and atherosclerosis. *Lancet* 1:334, 1958.

8 Beveridge, J.M., Connell, W.F., Firstbrook, J. B., Mayer, G.A., and Wolfe, M.J.: Effects of certain vegetable and animal fats on plasma lipids of humans. *J. Nutrition* 56:311, 1955.

† Mono-enoic (mono-unsaturated) acid is presumably synonymous under these conditions with oleic acid and di-enoic (di-unsaturated) acid with linoleic acid

Where a vegetable (salad) oil is medically recommended for a cholesterol depressant regimen, Wesson is unsurpassed by any readily available brand.

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Wesson is 100% cottonseed oil . . . winterized and of selected quality
 Linoleic acid glycerides (poly-unsaturated) 50-55%
 Oleic acid glycerides (mono-unsaturated) 16-20%
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Palmitic, stearic and myristic glycerides (saturated) 25-30%
 Phytosterol (predominantly beta sitosterol) 0.3-0.5%
 Total tocopherols 0.09-0.12%
 Never hydrogenated—completely salt free



THE WASHINGTON SCENE

A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

Congress returned to work this month to take up its unfinished business, including the controversial issue of health care for the aged, an atmosphere dominated by election-year politics.

The three or four week, tag-end session of Congress loomed as one of the most important meetings in the past decade as far as possible impact on the medical profession is concerned.

The lawmakers are slated to decide whether to embark the Federal Government on a course that could threaten the private practice of medicine, or to adopt a voluntary program that would pose no such danger.

The omnibus Social Security bill approved by the House Ways and Means Committee was easily cleared by the House, 381 to 23, and sent to the Senate Finance Committee, which held two days of hearings. The measure contained a voluntary, federal-state program for assisting needy aged persons meet their health care costs. Both the

administration and the American Medical Association endorsed the House measure as in keeping with the concept of giving the states prime responsibility for helping their citizens, for aiding those who are most in need of help, and for avoiding the compulsory aspects of health plans involving the Social Security mechanism.

A vote by the Finance Committee, headed by Sen. Harry F. Byrd (D., Va.), was scheduled shortly after the Senate resumed operations in August. Whatever action the committee took, however, proponents of schemes such as the Forand bill to provide a compulsory federal medical program promised a determined fight on the floor of the Senate.

In the event Congress should approve a government medicine plan, opponents were counting on a Presidential veto to kill the measure. The Chief Executive repeatedly has asserted in strong language his all-out opposition to any compulsory plan for health care financing.

At the Senate Finance Committee hearing, Arthur S. Flemming, Secretary of Health, Education and Welfare, renewed the administration's flat stand against the Social Security avenue to financing health costs. Such a plan, he said, would inevitably lead to pressures for expanding the benefits and lowering or eliminating the age requirement. Under such circumstances, a 15 per cent or 20 per cent Social Security payroll tax would not be too far off, he said. "We believe it is



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pantothenylol 2%

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plus the soothing, antipruritic, healing influence of pantothenylol

unsound to assume that revenue possibilities from a payroll tax are limitless."

Dr. Leonard W. Larson, President-elect of the American Medical Association, told the committee the House bill is the "antithesis of the centralized, socialized, statist approach of the proposals advocating national compulsory health insurance."

"To those critics who call this program modest, we say that fiscal irresponsibility, unpredictable cost and maximum nationalization are not the accepted criteria for good legislation," he testified.

A spokesman for the insurance industry pointed out "giant strides" made by private health insurance in recent years in covering aged persons. E. J. Faulkner declared that one of the most prevalent and erroneous assumptions on the matter is that most of the aged aren't able to contribute to financing their own health care costs.

The Social Security health bills, he said, "would impair or destroy the private practice of medicine, would add immeasurably to our already crushing tax burden, would aggravate our severe public fiscal problems, and would entail other undesirable consequences."

In other testimony, the AFL-CIO again urged enactment of a Social Security health bill; the American Optometric Association and the International Chiropractors Association urged that health benefits included in any bill include the services of osteopaths and chiropractors, respectively.

On another legislative proposal of interest to the medical profession—the Keogh-Simpson bill—a Senate debate was scheduled this month. Senator Gordon Allott (R., Colo.) said in a Senate speech that "I believe that this legislation will have the overwhelming support of this body."

The bill, which would encourage retirement savings by the self-employed such as lawyers, small businessmen and physicians, has already been approved by the House. The Senate bill, voted by the Senate Finance Committee, would require participating self-employed to establish retirement plans for their employees.

F.A.A. pilot examinations

Effective June 15, 1960, the Federal Aviation Agency will require that student and private pilots be given their medical examination by designated medical examiners. This rule reinstates a practice which was in effect from 1926 until 1945.

In announcing the re-establishment of this practice, Dr. James L. Goddard, the Civil Air Surgeon, has emphasized his previous statements that any physician may be considered eligible for designation as an examiner.

Those physicians in localities where flying activities are conducted may wish to consider filing an application for designation by writing to the Civil Air Surgeon, Federal Aviation Agency, Washington 25, D. C.

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burns

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dermatitis (atopic, contact, eczematoid)

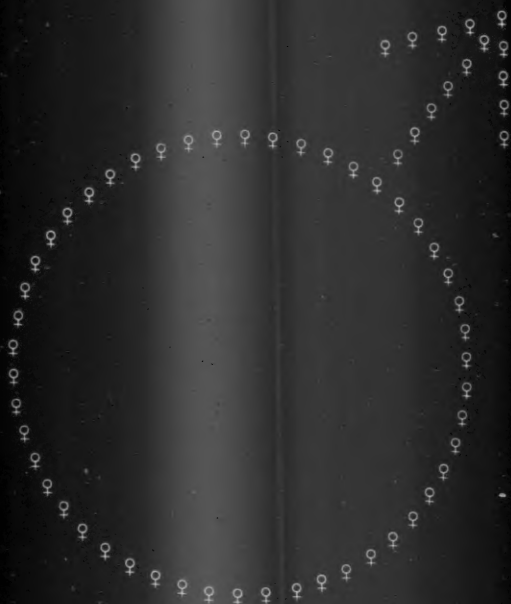
neurodermatitis

pruritus ani et vulvae

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DOSAGE: Gonorrhea in the male — Six capsules of TETREX in 3 divided doses, in one day.

*Marmell, M., and Prigot, A.: Tetracycline phosphate complex in the treatment of acute gonococcal urethritis in men. *Antibiotic Med. & Clin. Ther.* 6:108 (Feb.) 1959.



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LOW BACK SYNDROMES					
Acute low back strain	25	19	8	6	58
Chronic low back strain	11	5	1	1	18
"Porters' syndrome"*	21	5	1	1	28
Pelvic fractures	2	1	—	—	3
NECK SYNDROMES					
Whiplash injuries	12	6	2	1	21
Torticollis, chronic	6	2	3	2	13
OTHER MUSCLE SPASM					
Spasm related to trauma	15	6	1	—	22
Rheumatoid arthritis	—	18	2	1	21
Bursitis	2	6	1	—	9
TENSION STATES					
	18	2	4	3	27
TOTALS	112 (51%)	70 (32%)	23 (10%)	15 (7%)	220 (100%)

*Over-reaching in lifting heavy bags resulting in sprain of upper, middle, and lower back muscles.

Dosage: Adults, 200 or 100 mg. orally three or four times daily.

Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

How Supplied: Trancopal Caplets[®]

200 mg. (green colored, scored), bottles of 100.

100 mg. (peach colored, scored), bottles of 100.

1. Kearney, R. D.: *Current Therap. Res.* 2:127, April, 1960.

ORGANIZATION



Medical school in New Mexico

The University of New Mexico has been granted \$1,082,300 by the Kellogg Foundation, Battle Creek, Michigan, to start a medical school.

The grant provides funds for additional study, and for buildings. It stipulates that the school must be regional and open to applicants from other states in the area.

University President Tom L. Popejoy said, "With luck we hope to open the doors for the first two years of medical study in two to three years, but even then it will require another 10 years to produce practicing physicians for the state."

New Mexico joins National Association of Blue Shield Plans

Surgical Service, Incorporated, a medical-surgical plan serving the State of New Mexico with headquarters in Albuquerque, has been approved as an active member of the National Association of Blue Shield Plans, John W. Castellucci, Executive Vice President of the national association, announced recently.

The New Mexico Plan, which now can use the Blue Shield name and symbol, has been in operation for 13 years and has enrolled more than 55,000 members in that period of time. L. W. Burrell is executive officer of the Blue Shield Plan.

New Mexico Blue Shield brings to 74 the number of Blue Shield Plans and affiliates in the United States and Canada. Acceptance into the National Association of Blue Shield Plans was based on the Plan's ability to meet the specific standards of organization and operation set up by the national association, Castellucci said.

Obituaries

PETER P. DANDREA

Dr. Peter P. Dandrea was born June 29, 1912, in Wilmington, Delaware, and died February 12, 1960. He graduated from the Hahnemann Medical College in 1947 and had practiced in New Mexico since 1954. He was a resident of Clovis, N. M.

Dr. Dandrea was a member of the Curry-Roosevelt County Medical Society.

WILLIAM A. ROSE

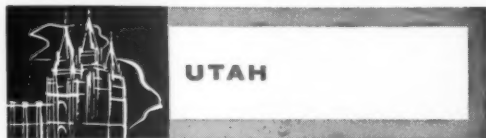
Dr. William A. Rose was born on August 10, 1915, and died on March 16, 1960. He was graduated from the Tufts Medical School in Boston in 1940 and obtained a New Mexico license in October, 1946, and practiced in Carlsbad, N. M.

At the time of his death Dr. Rose was a member of the Eddy County Medical Society.

ROGER COKE, JR.

Dr. Roger Coke, Jr., was born on June 1, 1915, in Marshall, Texas, and died in May, 1960. He was a graduate of the University of Texas in 1953 and obtained his New Mexico license in April, 1955, and practiced in Aztec, N. M.

Dr. Coke was a member of the San Juan County Medical Society.



Obituaries

ROGER W. BROWN

Roger W. Brown, M.D., 1560 Country Hills Drive, Ogden, Utah, died May 11, 1960.

Dr. Brown was born in Ogden in 1919. He was graduated from the University of Washington in 1945 and received his M.D. license in 1948. He was a member of the Weber County Medical Society, Utah State Medical Association and the American Medical Association. He was also active in the Ogden Surgical Society.

ROSCOE M. NELSON

Roscoe Maughan Nelson, M.D., 43, Provo physician and former Marine officer, died in the Utah Valley Hospital of natural causes last month.

He was born November 15, 1916, in Logan to Gustave Andrew and Mabel Maughan Nelson and received his early education in Logan and American Fork schools. He married Joyce Rich, March 4, 1942. Dr. Nelson served as a pilot in the U. S. Marine Corps from 1939 to 1946. He resigned from the Marine Corps as a Lieutenant Colonel to accept an appointment to the University of Utah Medical School. While in the service he was awarded the Distinguished Flying Cross, the Distinguished Service Cross and six air medals.

Dr. Nelson was a member of the Utah County

Medical Society, Southwest Surgical Society, a Fellow of the American College of Surgeons, was a surgery consultant for Brigham Young University Health Center and was a Major in the Medical Corps of the Utah National Guard.

Survivors include his widow, four sons and two daughters.

CHARLES N. RAY

Charles Newland Ray, M.D., prominent Salt Lake area physician, died last month in a Salt Lake hospital after an illness of several months. Dr. Ray, who practiced medicine for more than 60 years, retired about a year ago because of ill health.

A native of Bedford, Indiana, and a graduate of the University of Louisville Medical School, he began his practice in Utah in Emery County in 1898. He subsequently practiced in Mt. Pleasant, was the physician for the old Utah Copper Company in Bingham for several years and from 1914 to his retirement practiced in Salt Lake City.

He had been a member of the St. Mark's Hospital staff for 46 years and in 1957 was elected an Honorary President of the Utah State Medical Association. Dr. Ray was a member of the Acacia Lodge, F.&A.M., El Kalah Shrine, and Salt Lake County Medical Society.

Dr. Ray was the Salt Lake County physician in 1916-17 and started the first nursing school at the Salt Lake County Hospital.

Born September 10, 1873, he was a son of Thomas Todd and Susan Kearn Ray. He married Lulu G. Bourgard of Bingham June 18, 1902, in Salt Lake City.

Dr. Ray is survived by his widow, daughter, son, brother, three grandchildren and two grandchildren.

ORSON S. DAINES

Orson S. Daines, M.D., Ogden specialist in eye, ear, nose and throat disorders, died last month at an Ogden hospital of a heart ailment.

He was born November 23, 1903, in Hyde Park, Cache County, a son of Joseph B. and Myra Lamb Daines. He was a graduate of the University of Utah College of Medicine in 1928 and the Northwestern University Medical School in 1930. On September 14, 1926, he married Minnie Nilson. After practicing medicine in Preston, Idaho, for five years, Dr. Daines returned to Northwestern University to specialize in ophthalmology and otolaryngology. He was a member of Phi Beta Pi and Pi Kappa Alpha fraternities.

Dr. Daines was a member of the Weber County Medical Society. He was a former member of the Ogden Chamber of Commerce and the Ogden Lions Club. He was an elder in the Church of Jesus Christ of Latter-day Saints and the Ogden 12th LDS Ward.

Surviving are his widow, two sons, three daughters, nine grandchildren, stepmother, six brothers and four sisters.



Colorado delegates' report

The 109th annual meeting of the American Medical Association was held in Miami Beach, Florida, June 13-17, 1960. The total attendance was over 19,100, a little under average for an annual meeting. About 40 from Colorado attended.

Dr. Fred Humphrey, Chairman of the Council on Rural Health; Dr. Sam Newman, member of the A.M.A. Council on Scientific Assembly and Chairman of the Sears Foundation's Medical Branch, and Dr. McKinnie Phelps, Co-chairman of the Council on Legislation, represented Colorado both as members of their Councils and in an advisory capacity to the delegates and alternates. Dr. James Perkins represented the American Academy of General Practice as a member of their Board of Directors. The official state delegation included President J. L. McDonald, President-elect C. W. Anderson, Constitutional Secretary Harry C. Hughes, Delegates Everett H. Munro, I. E. Hendryson and the undersigned; Alternates H. E. McClure, Clare C. Wiley and Gatewood Milligan; and Mr. Harvey T. Sethman and Mr. Donald G. Derry of the Executive Office staff.

Although this was not a meeting with many controversial issues, it was a worthwhile one. The A.M.A. business was covered in a very serene manner. Our delegation was divided so that everyone had an assignment and Colorado spoke at most of the reference committee meetings. Dr. Hendryson served as a member of the Reference Committee on Insurance and Medical Service.

Colorado maintained a hospitality room for the convenience and entertainment of our own members, their friends, officers, and official A.M.A. delegates and their families. The room was extremely busy during the hospitality hour each day. Our guests sometimes numbered as high as 80 in the evening and ranged from medical students to the Surgeon General of the Air Force, Major General Ollie Kneiss, who sometime will make Colorado his permanent home.

There were many interesting meetings of specialty groups before and after the main A.M.A. meeting. Of great interest and importance was the eighth annual National Medical Civil Defense Conference. This was sponsored by the Council on National Security of the A.M.A. and presented by the Medical Department of the U. S. Navy. The meeting was held in the Bal Masque Room of the Americana Hotel on Saturday, June 11.

This conference was divided into three phases. The first session was on the clinical aspects of radiation exposure. In this, the application of

progress in research to patient care was vividly illustrated. The details of the management of patients exposed to radiation in disaster were presented by Captain E. R. King, Chief of the Department of Radiology, U. S. Naval Hospital, Bethesda, Maryland. Nursing care of the radiation patient was reviewed in detail and presented beautifully by Lt. Commander Lenore Simon. The procurement, processing and storage of bone marrow as well as the current status of bone marrow transplantation was presented in detail by the staff of the Tissue Bank Department in the Clinical Hematology Department of the National Naval Medical Center in Bethesda.

The second session was devoted to the human responses to confined environments, which contributed to our knowledge of shelters. Captain Harry S. Edner, M.C.U.S.N., Radiological Medical Director of the U. S. Naval Radiological Defense Laboratory, San Francisco, California, and Captain Gerald S. Duffner, M.C.U.S.N., Director of Submarine Medicine Division, Bureau of Medicine and Surgery, Washington, D. C., spoke on life in confined environments. Dr. Duffner did the medical research work on the submarine Nautilus which was the first to go beneath the North Pole. He had some excellent pictures and some important remarks on life in confined environments. Captain Duffner is a graduate of the University of Colorado and gave us every reason to be proud of him and of our medical school. Group behavior in isolation in Antarctica was ably discussed by Lt. Commander John E. Rasmussen, Coordinator of Neuropsychiatric Research, Bureau of Medicine and Surgery, Washington, D. C.

The third session in the afternoon covered the details of casualty care in disasters. Out of its experience with disasters around the world, and in support of the U. S. Marine Corps in amphibious warfare, the U. S. Medical Department has evolved technics which are applicable to civil defense in wartime. This was a very worthwhile meeting, well attended, and presented a more hopeful aspect of the frightful shadow of nuclear warfare.

The 16th annual meeting of the Conference of Presidents and Other Officers of State Medical Associations was held on Sunday, June 12, in the Grand Ball Room of the Americana Hotel. The meeting was well attended and extremely spirited. The first guest speaker was the Hon. Ross Barnett, Governor of the State of Mississippi. It was an interesting, stimulating, and heartening talk by a conservative southern Democrat. He emphasized the importance of preserving the rights of the individual and of the state, and pointed out the pitfalls and dangers incident to too highly centralized national government. Governor Barnett had some definite ideas on what should be done regarding our greatly expanded and ever-increasing aging population. He agreed that it was a problem and a challenge that should be worked out and worked out well at the individual or family level when possible, but that the responsi-

bility should never pass to a higher than state echelon. He deplored the tremendous dilution of tax funds by the time they return from Washington. Governor Barnett made a plea for the preservation of our Constitution.

In startling contrast to this was a talk by another man from the same political party, namely Paul M. Butler. Chairman of the Democratic National Committee. Chairman Butler was openly critical of the medical profession in nearly every aspect of our many activities. He boldly stated that the Forand bill in its original form would definitely be a part of the next national Democratic platform. He was quite critical of the cost of medical care and obviously was oblivious to what a relatively small percentage of this the doctor is able to control. Chairman Butler blamed the doctors for not anticipating and preventing the alleged inequities in the cost and selling price of many drugs. He credited the Kefauver Committee and the Democratic party for uncovering what he called unfair and exorbitant drug prices. Chairman Butler pointed out many other "shortcomings" of the medical profession. He is an attractive, courageous man, but many believe that the accuracy of some of his statements was questionable. He gained more votes for the Republican party than any Republican possibly could have done!

Another interesting speaker was Thruston Morton, Chairman of the Republican National



"Nervous, of course not! I'm merely waiting to date the nurse in maternity."

Committee. Mr. Morton's discussion centered mostly around emphasizing the progress that the United States had made in basic international relations under a Republican administration. He implied that the Republican platform in the next election would include further improvement in international relationship and further efforts to check the rampant inflation. Chairman Morton thought that the Forand Bill would be far from the big issue in the 1960 political campaign.

John H. Furbay, Ph.D., who for some time has been a personal advisor of President Eisenhower, gave a good talk, "Wings Over the World," pertaining to the relative values of what Russia has and what we have. He stated that we should never become complacent, but at the present time we are far ahead of Russia in everything except the exhibitionist type of earth satellite propaganda. He deplored the fact that we had not been first to launch such a satellite, but this part of our space program had not been emphasized. Housing and over-all production, including comparison of farm and industrial production levels of our country and Russia, were pointed out by Dr. Furbay. During the past 65 days he had made 66 speeches in 25 countries. He really made us believe in America, and gave us assurance that we were adequately prepared.

(Editor's Note: In this report Dr. Sawyer neglects to mention the fact that at the close of the Conference of Presidents and Other Officers of State Medical Associations one Kenneth C. Sawyer, M.D., of Denver was unanimously chosen President-elect of that organization.)

There were many other facets to the A.M.A. meeting. The Presidential Inaugural Address and the reception and ball held at the Fontainebleau Hotel on Tuesday, June 14, was an outstanding event. The colored television programs originated in Mount Sinai Hospital and were sponsored, as usual, by Smith Kline and French Laboratories. There were excellent shows each day from 10 a.m. to 2 p.m.

The American Physicians Art Association received a great deal of attention and favorable comment. The scientific program was of an especially high caliber and Colorado was represented by good scientific papers. The motion pictures and scientific exhibits were held in Miami Beach's new auditorium, were very well attended, and instructive and stimulating.

One of the highlights of the meeting was a speech that Dr. McKinnie Phelps made before the National Women's Auxiliary. It dealt mainly with the A.M.A. platform for political action. In the course of the speech it was pointed out that the primary legislative objectives of the A.M.A. are concerned with seeing to it that the people of this country receive the best medical care that can be provided for them—not the selfish aggrandizement of doctors that many of our cynical opposition would have the people believe.

It was pointed out that while certain indi-

viduals sometimes picture the A.M.A. as a "powerful, ruthless lobby," it actually consists of less than 180,000 doctors in a nation of 180 million people, and yet does continue to exercise an influence on legislation far out of proportion to its numbers. This in contradistinction to some of the great organizations such as those of labor which number in the tens of millions.

The explanation for this seeming paradox lies in the fact that many millions of people in this country know in their hearts that the doctors really are deeply and sincerely concerned with the health of the people, and are willing to accept their guidance in matters of medical legislative concern.

From this point on, several steps and procedures in the field of legislative action were discussed from a practical point of view—steps that can be taken by doctors and their wives to strengthen their community friendships and prove their sincere interest in the community. Doctors and their wives were urged to participate in practical party politics, strengthened by a strong and useful role in community activities.

A.M.A. political action was presented as an organism "based on idealism, drawing its strength from community friendships," which can and must be constantly improved.

Dr. Phelps also prepared a pamphlet, "The Road to Effective Citizenship." This was written to contain much of the same ideas, but broadened to apply to members of any similarly small group such as the doctors, and to urge citizen participation of everyone in the community and party activities.

Our executive staff served us well and faithfully and deserve a lot of commendation. The summary of business appears in the report from the Executive Vice President of the American Medical Association.* I will comment more on the details of the individual resolutions in remarks before the September session of the House of Delegates.

Kenneth C. Sawyer, M.D.,
Senior Delegate.

*See Sept. RMMJ.

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Ninetieth Annual Session Program

of the

Colorado State Medical Society

September 14-17, 1960 . . . Stanley Hotel, Estes Park

Wednesday, September 14

8:00—House of Delegates

2:00—Reference Committee Meetings
Stag Smoker

Thursday, September 15

I. Bruce McQuarrie, M.D., President, Utah State Medical Association, Presiding

METABOLISM

9:00-9:45—"Recent Advances in Carbohydrate Metabolism," Rachmiel Levine, M.D., Michael Reese Hospital, Chicago

9:45-10:30—"The Problem of Atherosclerotic Coronary Heart Disease," Jeremiah Stamler, M.D., Director, Control Program Section, Chicago Board of Health

10:30-11:30—Intermission

11:00-11:45—"Some Factors Influencing the Biological Synthesis of Cholesterol," Marvin D. Siperstein, M.D., Ph.D., Associate Professor, Department of Internal Medicine, The University of Texas, Southwestern Medical School, Dallas

PANEL

11:45-1:00—Rachmiel Levine, M.D., Moderator
Participants, Drs. Stamler and Siperstein

2:30—House of Delegates

Friday, September 16

Wesley Hall, M.D., President-elect, Nevada State Medical Association, Presiding

BIOCHEMISTRY AND GENETICS

9:00-9:45—"Some Recent Advances in Chemical Genetics," George W. Beadle, Ph.D., Division of Biology, California Institute of Technology, Pasadena

9:45-10:30—"Genetics and Protein Structure," V.

M. Ingram, Ph.D., Associate Professor of Biochemistry, Massachusetts Institute of Technology, Cambridge

10:30-11:00—Intermission

11:00-11:45—"The Intracellular Development of Viruses Revealed by the Electron Microscope," Councilman Morgan, M.D., Department of Microbiology, College of Physicians and Surgeons, New York

PANEL

11:45-1:00—Theodore Puck, Ph.D., Moderator, Department of Biophysics, University of Colorado School of Medicine, Denver
Participants: Drs. Ingram, Morgan, and Beadle

2:30—House of Delegates (optional)

Banquet Speaker—Richard J. Stull, V.P., Medical and Health Sciences

Saturday, September 17

John L. McDonald, M.D., President, Colorado State Medical Society, Presiding

AUTO-IMMUNE DISEASE

8:00—House of Delegates (election meeting)

9:00-9:45—C. G. Culbertson, M.D., Director, Biological Research, Eli Lilly, Indianapolis

9:45-10:30—Israel Davidsohn, M.D., Mt. Sinai Hospital, Chicago, Illinois

10:30-11:45—John Beach Hazard, M.D., Chairman of Division of Pathology and Head of Department, Cleveland Clinic Foundation

11:15-11:45—Intermission

11:45-12:15—Report, House of Delegates; Report, Necrology Committee; Installation of Officers

12:15—Presidential Address, Cyrus W. Anderson, M.D., Denver

Afternoon free for a variety of exciting and relaxing activities . . . so . . . take your choice . . . enjoy yourself!

Watch for Final Program for Auxiliary Activities



George W. Beadle, Ph.D.
Pasadena



C. G. Culbertson, M.D.
Indianapolis



Israel Davidsohn, M.D.
Chicago



John B. Hazard, M.D.
Cleveland

Guest Speakers



V. M. Ingram, Ph.D.
Cambridge



Rachmiel Levine, M.D.
Chicago



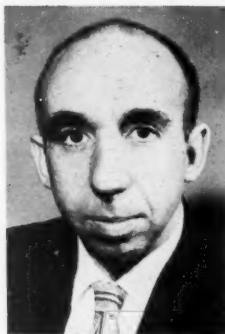
Councilman Morgan, M.D.
New York



Theodore Puck, Ph.D.
Denver



M. D. Siperstein, M.D., Ph.D.
Dallas



Jeremiah Stamler, M.D.
Chicago



Mr. Richard J. Stull
Berkeley

for AUGUST, 1960

Squibb Announces Chemipen

Squibb Alpha-Phenoxethyl Penicillin Potassium

new chemically improved penicillin
which provides the highest blood
levels that are obtainable with oral
penicillin therapy



As a pioneer and leader in penicillin therapy for more than a decade, Squibb is pleased to make Chemipen, a new chemically improved oral penicillin, available for clinical use.

With Chemipen it becomes possible as well as convenient for the physician to achieve and maintain higher blood levels—with greater speed—than those produced with comparable therapeutic doses of potassium penicillin V. In fact, Chemipen is shown to have a 2:1 superiority in producing peak blood levels over potassium penicillin V.*

Extreme solubility may contribute to the higher blood levels that are so notable with Chemipen.* Equally notable is the remarkable resistance to acid decomposition (Chemipen is stable at 37°C. at pH 2 to pH 3), which in turn makes possible the convenience of oral treatment.

And the economy for your patients will be of particular interest—Chemipen costs no more than comparable penicillin V preparations.

Dosage: Doses of 125 mg. (200,000 u.) or 250 mg. (400,000 u.), t.i.d., depending on the severity of the infection. The usual precautions must be carefully observed with Chemipen, as with all penicillins. Detailed information is available on request from the Professional Service Department.

Supply: Chemipen Tablets of 125 mg. (200,000 u.) and 250 mg. (400,000 u.), bottles of 24 tablets. Chemipen Syrup (cherry-mint flavored, nonalcoholic), 125 mg. per 5 cc., 60 cc. bottles.

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*Knudsen, E. T., and Rolinson, G. N.: "Chemipen" is a. *Lancet* 2:1105 (Dec.19)1959. SQUIBB TRADEMARK.

Eighty-second Annual Meeting

of the

Montana Medical Association

September 15, 16, 17, 1960 . . . Bozeman, Montana State College

Welcome

The officers and members of the Montana Medical Association extend to all physicians in the Rocky Mountain area a cordial invitation to attend its 82nd Annual Meeting in Bozeman on Thursday, Friday, and Saturday, September 15, 16, and 17. All of the scientific sessions, as well as all of the business meetings of the Association, will convene in the ballroom of the Student Union Building on the campus of Montana State College.

House of Delegates

The House of Delegates of the Association will convene for its opening session at 8:30 a.m. on Thursday, September 15. At this session, committee reports, resolutions, and new business will be introduced and referred to the appropriate reference committees for study. The second session of the House of Delegates will convene at 3:45 p.m. on Friday, September 16, and the final session at 1:30 p.m. on Saturday, September 17. The House of Delegates will recess its Saturday afternoon meeting to convene as the administrative body of MPS. Upon adjournment of the meeting of the administrative body, the House of Delegates will reconvene for the election of officers and for their installation.

Reception and banquet

On Thursday evening, September 15, the Montana Medical Association will sponsor its annual reception and banquet at the Baxter Hotel. John H. Furbay, Ph.D., lecturer, author, and global air commuter, will be the guest speaker. Dr. Furbay, whose participation as principal speaker at our banquet is sponsored by General Motors Corporation, is one of America's most dynamic interpreters of the world scene and is probably one of the busiest speakers on the American platform. He is extremely well informed upon world affairs and their relationships to American policy. During the annual banquet Harry J. McGregor, M.D., Great Falls, will be honored as a new member of

the 50 Year Club of the Montana Medical Association. Dr. McGregor will receive a certificate of distinction upon the completion of 50 years of active medical practice.

Entertainment

On Friday evening, September 16, physicians and guests attending the 82nd Annual Meeting will be entertained by members of the Gallatin County Medical Society under the presidency of Charles A. Kirkpatrick, M.D. The Virginia City Players will present an outstanding program of entertainment in the auditorium of the Gallatin County Junior High School, after which a buffet supper will be served in the Empire Room of the Baxter Hotel.

Scientific sessions

The following clinicians will discuss the subjects indicated during the scientific sessions on Thursday, Friday, and Saturday:

"Diaphragmatic Hernia"—"Swallowing and Dysphagia," P. R. Allison, F.R.C.S., Oxford, England.

"Fluid and Electrolyte Requirements of the Seriously-Ill Patient"—"Acute Renal Failure and the Artificial Kidney," James M. Burnell, M.D., Seattle, Washington.

"Management of the Severely-Burned Patient"—"A Mechanistic Approach to Thromboembolism," M. S. DeWeese, M.D., Ann Arbor, Michigan.

"Iron Deficiency Anemia"—"Hyperbilirubinemia in the Newborn," M. Eugene Lahey, M.D., Salt Lake City, Utah.

"Treatment of Achalasia"—"Hypersensitivity Factors in Ulcerative Colitis," J. Alfred Rider, M.D., Ph.D., San Francisco.

"Ophthalmic Syndromes of General Medical Interest," Phillips Thygeson, M.D., San Francisco.

Other guest speakers: Victor H. Hilyard, M.D., Denver; Russell L. Nichols, M.D., Ogden.

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WITHOUT
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COMPLAINS OF

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flatulence, belching,
intestinal atony,
indigestion

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Fifty-seventh Annual Meeting

of the

Nevada State Medical Association

September 7, 8, 9, 10, 1960 . . . The Stardust Hotel, Las Vegas

Wednesday, September 7

Registration—Stardust Hotel—Fee: \$20.00

9:30—Executive Committee Meeting, Nevada State Medical Association

2:00—Annual Session, House of Delegates

Thursday, September 8

9:00—Scientific Sessions—Crown Room

Address of Welcome by Ernest W. Mack, M.D., President, Nevada State Medical Association

"X-ray Diagnosis of Pneumonias of Childhood," Frederick J. Bonte, M.D., Professor of Radiology, University of Texas, Southwest Medical School, Dallas

"Problems of the Newborn," Arthur H. Parmelee, M.D., Clinical Professor Emeritus of Pediatrics, University of Southern California School of Medicine, Los Angeles

"A Review of the Collagen Diseases," Ronald W. Lamont-Havers, M.D., Instructor in Medicine, Columbia University School of Medicine, Medical Director of the Arthritis and Rheumatism Foundation, New York City

12:00 noon—Luncheon: Doctors and Wives—Pan American Room, Stardust Hotel

Hon. Grant Sawyer, Governor of Nevada, will speak on Nevada's part in the economic and social development of the West.

Afternoon—free

6:00-7:00—Cocktails, poolside, Stardust South

Evening—free

Friday, September 9

8:30—Crown Room

"Salvaging the Severely Damaged Hand," Preston

J. Burnham, M.D., Clinical Instructor, University of Utah School of Medicine, Salt Lake City

"Spontaneous Pneumothorax—Haemoptosis," Joseph L. Kovarik, M.D., Clinical Instructor in Surgery, University of Colorado School of Medicine, Denver

"Postoperative Care," Danely P. Slaughter, M.D., Clinical Professor of Surgery and Director of Tumor Clinic, University of Illinois College of Medicine, Chicago

"Degenerative Diseases, i.e., Bursitis, Tendonitis, etc.," Irvin E. Hendryson, M.D., Assistant Clinical Professor of Surgery, University of Colorado School of Medicine, Denver

12:00 noon—Luncheon, Pan American Room

Guest Speaker: Dr. Lamont-Havers, "Current Progress in the Fight Against Arthritis and Rheumatism"

2:00—Panel, "Why Do You Always —?" with all guest speakers participating, each being allotted 10 minutes. Moderator: Adrien VerBruggen, M.D.

Panel discussion on topics presented by guest speakers

Banquet, International Room, Stardust Hotel.

Guest Speaker: Findley E. Russell, M.D., Assistant Professor of Neurosurgery, College of Medical Evangelists, Los Angeles, "Nonhuman Venomous Animals I Have Known"

Saturday, September 10

8:30—Crown Room

"Strokes," Harold C. Voris, M.D., Clinical Professor of Neurological Surgery, Stritch School of Medicine, Loyola University, Chicago

"Diagnosis of Accessible Cancer," Danely P. Slaughter, M.D.

11:00—Final Session, House of Delegates, Nevada State Medical Association

for AUGUST, 1960

Sixty-fifth Annual Scientific Sessions of the Utah State Medical Association

September 21, 22, 23, 1960 . . . Hotel Utah Motor Lodge

Wednesday, September 21

8:00—Registration (all day)

9:00—"The Unmarried Mother—an Unsolved Problem," Irwin H. Kaiser, M.D., Ph.D., Salt Lake City

9:30—"New Concepts of Nasal Physiology," Maurice H. Cottle, M.D., Chicago

10:00—"Methods of Investigation of Unexplained and/or Violent Death," Russell S. Fisher, M.D., Baltimore

11:00—"The Roentgen Diagnosis of Benign Gastric Ulcer," Harold O. Peterson, M.D., Minneapolis

11:30—"Anemias, Their Differentiation and Treatment, as Reflected by Case Histories," Maxwell M. Wintrobe, M.D., Ph.D., Salt Lake City

2:00—"Disciplinary Problems at a County Medical Society Level," William F. Quinn, M.D., Los Angeles

2:30—"Diagnosis and Management of Abdominal Masses," Merl J. Carson, M.D., Los Angeles

3:30—Live clinic sponsored by Department of Psychiatry, University of Utah College of Medicine. Moderator: C. H. Hardin Branch, M.D. Members: Eugene L. Bliss, M.D., Nyla J. Cole, M.D., C. Craig Nelson, M.D., and Jack L. Tedrow, M.D.

Thursday, September 22

Registration (all day)

9:00—"Local Gastric Cooling for Massive Gastric Hemorrhage," Owen H. Wangensteen, M.D., Minneapolis

9:30—"Malpractice Actions and Prophylaxis," Russell S. Fisher, M.D.

10:00—"Vomiting in Infants: Recognition of a Surgical Cause," Frederic H. Bentley, M.D., Portland

11:00—"Prejudices and Observations Following 1,500 Operative Procedures for Duodenal Ulcer," William F. Quinn, M.D.

11:30—"Near or Total Colectomy for Cancer of the Colon," Owen H. Wangensteen, M.D.

2:00—Prize winning scientific paper by a University of Utah medical student

2:15—Prize winning scientific paper by a University of Utah medical student

2:30 to 4:30—Study sessions by the various specialty groups—scientific movies

Friday, September 23

Registration (all day)

9:00—"The Roentgen Diagnosis of Abnormalities of the Intervertebral Disc," Harold O. Peterson, M.D.

9:30—"Management of Severe Infections in Pediatrics," Merl J. Carson, M.D.

10:00—"Current Concepts in the Management of Bacterial and Viral Pneumonias," William M. M. Kirby, M.D., Seattle

11:00—Symposium, "Multiple Problems in an Injured Patient," sponsored by Staff of the St. Mark's Hospital, Salt Lake City. Moderator: John F. Waldo, M.D. Members: Wallace L. Chambers, M.D., Robert H. Lamb, M.D., John H. Clark, M.D.

2:00—"Is Induction of Labor a Therapeutic Procedure?," Irwin H. Kaiser, M.D., Ph.D.

2:30—"How to Use Convalescence for Quicker Recovery," Frederic H. Bentley, M.D.

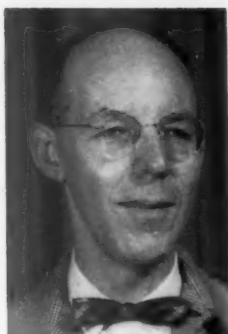
3:00—"Objective Tests for Nasal Function. Introducing a Simple Test for the Use of the General Practitioner," Maurice H. Cottle, M.D.

4:00—"The Differential Diagnosis and Management of Purpura," Maxwell M. Wintrobe, M.D., Ph.D.

4:30—"Recent Advances in Antibiotic Therapy," William M. M. Kirby, M.D.



Frederic H. Bentley, M.D.
Portland



Merl J. Carson, M.D.
Los Angeles

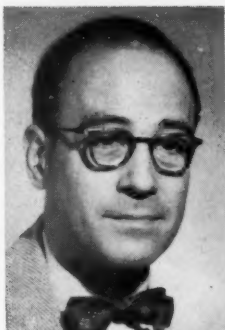


Maurice H. Cottle, M.D.
Chicago



Russell S. Fisher, M.D.
Baltimore

Guest Speakers



Irwin H. Kaiser, M.D., Ph.D.
Salt Lake City



William M. Kirby, M.D.
Seattle



Harold O. Peterson, M.D.
Minneapolis



William F. Quinn, M.D.
Los Angeles



Owen H. Wangensteen, M.D.
Minneapolis



Maxwell M. Wintrobe, M.D.
Salt Lake City

for AUGUST, 1960

Fifty-seventh Annual Program

of the

Wyoming State Medical Society

September 7, 8, 9, 10, 1960 . . . Jackson Lake Lodge, Moran

Tuesday, September 6

4:00 p.m. — Registration — Lobby, Jackson Lake Lodge

Wednesday, September 7

8:00—Council Meeting Breakfast, Benjamin Gitlitz, M.D., Chairman

9:00 to 12:30 p.m.—House of Delegates Meeting, Benjamin Gitlitz, M.D., presiding

ORIENTATION PROGRAM

2:00—Welcome, Benjamin Gitlitz, M.D.

2:05—"Our State Society," F. H. Haigler, M.D.

2:15—"The American Medical Association," Franklin D. Yoder, M.D.

2:30—"Why the Practicing Physician Should Support His State Society and A.M.A.," William J. Thaler, M.D.

2:40—"Legal Aspects of Medicine," Mr. Byron Hirst

3:00—"Blue Shield-Blue Cross," Mr. Arthur R. Abbey

3:15—"Intraprofessional Relations," J. Cedric Jones, M.D.

3:30—"The State Health Department, Board of Health, Board of Medical Examiners," James W. Sampson, M.D.

3:45—Panel discussion (with coffee), S. J. Giovale, M.D., Moderator

Thursday, September 8

SCIENTIFIC MEETING

9:00—"Environmental Medicine," Frank Yoder, M.D.

9:30—"Prevention of Cancer," Robert J. Samp, M.D.

10:00—"Use of Steroids in Rheumatic Diseases," Wm. D. Robinson, M.D.

11:00—"Use of X-rays in the Practical Management of Chest Problems," Charles Gaylord, M.D.

11:30—"Pre- and Postoperative Care," Philip Thorek, M.D.

12:00—"Management of Injuries to the Urinary Tract," William Brannen, M.D.

(Time and place to be announced)

Nominating Committee Meeting—

Francis A. Barrett, M.D., Chairman

Resolutions Committee Meeting—

Francis A. Barrett, M.D., Chairman

Fee Schedule Committee Meeting—

J. R. Bunch, M.D., Chairman

Friday, September 9

SCIENTIFIC MEETING

9:00—"Mental Illness—Its Treatment and Prevention," Leo H. Bartemeier, M.D.

9:30—"Newer Concepts in the Emergency Treatment of Severe Head Injury," Robert J. White, M.D.

10:00—"Oral Cancer," Robert J. Samp, M.D.

11:00—"Variants of Rheumatoid Arthritis or Non-articular Rheumatism," Wm. D. Robinson, M.D.

11:30—"The Acute Abdomen in the Aged," Philip Thorek, M.D.

12:00—"Improvement in Function in Patients With Severe Rheumatoid Arthritis," Vernon Nickel, M.D.

2:00 to 4:30—House of Delegates Meeting, Benjamin Gitlitz, M.D., Presiding

Saturday, September 10

SCIENTIFIC MEETING

9:00—Movie, "Total Cerebral Hemispherectomy in the Monkey," Robert J. White, M.D.

9:30—"National Manpower Needs," Alfred Popma, M.D.

10:00—"Fundamental Problems in Medical Care," Leo H. Bartemeier, M.D.

11:00—"Indications for Prostatectomy," William Brannen, M.D.

11:30—"Radiology in the General Practitioner's Office," Charles Gaylord, M.D.

12:00—"Rehabilitation of Patients With Strokes," Vernon Nickel, M.D.

12:30—Presentation of Cases, Gottsche Foundation

2:30—Council Meeting

2:30—Sanity Committee Meeting, Mark P. Farrell, M.D., Chairman (West Conference Room off Explorers Room). "Proposed Changes in Wyoming Mental Health and Commitment Laws," Leo H. Bartemeier, M.D.



Leo Henry Bartemeier, M.D.
Baltimore



William Brannan, M.D.
New Orleans

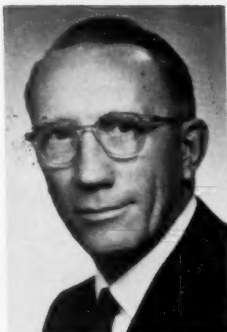


Charles Gaylord, M.D.
Denver



Vernon L. Nickel, M.D.
Downey, California

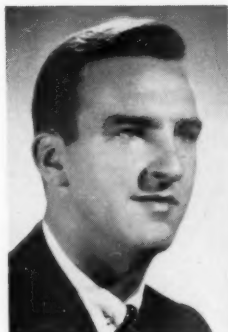
Guest Speakers



Alfred M. Popma, M.D.
Boise



William D. Robinson, M.D.
Ann Arbor



Robert J. Samp, M.D.
Madison



Philip Thorek, M.D.
Chicago



Robert J. White, M.D.
Rochester



Franklin D. Yoder, M.D.
Chicago

for AUGUST, 1960

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*Kestler, O.: Conservative Management of “Low Back Syndrome”,
J.A.M.A. 172: 2039 (April 30) 1960.*

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SUPPLIED: 350 mg., white tablets, bottles of 50.
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BLUE CROSS
BLUE SHIELD

Blue Shield Study Commission formed

Establishment of a "Blue Shield Study Commission" has been announced by the National Association of Blue Shield Plans, to undertake a major study of the "differences of concept and coverage" among the nation's 75 Blue Shield Plans which "have resulted in different approaches to the problem of providing adequate protection to the public."

In announcing the appointment of this new commission, Dr. Donald Stubbs, Chairman of the Board of the National Association, pointed out that while the setting up of this commission was directed by the Annual Conference of Blue Shield Plans in Los Angeles in April, its area of study and recommendation is logically related to the action of the A.M.A. House of Delegates in Miami on June 15, in reiterating A.M.A. support of the Blue Shield Concept and providing for strengthened liaison between A.M.A. and Blue Shield Plans.

"The job of this new Blue Shield Study Commission," said Dr. Stubbs, "is to identify and pinpoint the specific problems that must be solved

continued on page 81

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IN
APPETITE CONTROL



Shadow or substance

Marcus J. Smith, M.D., Santa Fe, New Mexico

Apothegm

"Let us strain at the gnat and forget the camel" (Barden).

Clinical data

Severe vomiting, cramping abdominal pain and failure to have a bowel movement resulted in the hospitalization of this 61-year-old woman. For three days, these symptoms had persisted with no relief afforded by home medications.

Four years previously she had been treated surgically for an adenocarcinoma of the uterus; a year later, a mass was found in the vaginal vault and labelled histologically as a recurrence.

The patient was well-developed, well-nourished and acutely ill, presenting with moderate distention, generalized abdominal tenderness, a tense abdominal wall, absent bowel sounds, no visible peristalsis and two abdominal scars. The temperature was normal, the blood pressure 100/60. There were 13,000 white blood cells per cu. mm.; the hemoglobin and red cell counts were normal, as was the urine. Na, K and Cl levels were respectively 140, 5.7 and 95 mEq./l.

X-ray study

Abdominal films were obtained in both flat and upright (Fig. 1) positions. These showed numerous distended loops of small intestine in the upper abdomen with fluid levels (left arrow). A sharply defined, rounded soft tissue mass about 12 cm. in size was seen in the right side of the abdomen and upper pelvis (lower and upper right arrows). A diagnosis of a high, small intestinal obstruction, possibly caused by a mass in the pelvis, was recorded.

Clinical course

Abdominal exploration disclosed distention from the midileum proximally, and at the point of obstruction, a walnut-sized mass was felt intraluminally. This and the adjacent inflamed bowel were resected; the mass was an impacted gall stone, with an associated phlegmonous enteritis. The large mass, identified on the above film, was

a mass of omentum, entirely unrelated to the patient's disease.

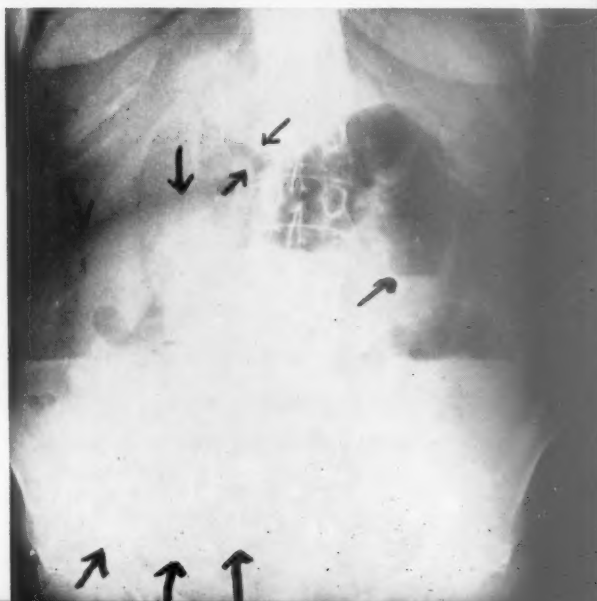
Epicrisis

Review of Fig. 1 now disclosed a serpiginous pattern of air in the common duct and some of the hepatic radicles (central upper arrows). This was overlooked entirely by the original observer. If the abnormal air shadow had been noted, it would have been possible to establish a diagnosis of an internal biliary fistula.¹ Why was the very obvious abnormal air shadow not seen originally? Perhaps because the observer's attention was diverted by the "camel" in the right lower abdomen away from the "gnat" in the right upper abdomen. "Correctable diagnostic errors seem to be due not so much to lack of medical knowledge as to deficiencies of . . . alertness and thoroughness."²

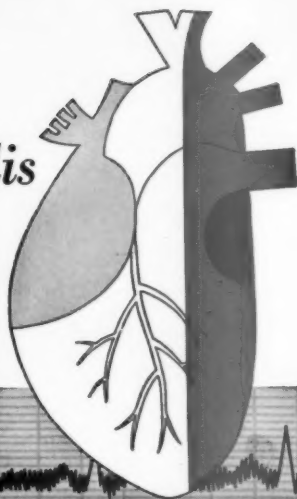
REFERENCES

- ¹Rigler, L. C.; Borman, C. N., and Noble, J. R.: Gallstone Obstruction. *J.A.M.A.* 117:1753-1759 (November 22), 1941.
- ²Gruver, R. H., and Freis, E. D.: Study of Diagnostic Errors. *Ann. Int. Med.* 47:108-120 (July), 1957.

Fig. 1



*whenever digitalis
is indicated*



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Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy,
Boston, Little, Brown & Company, 1954, p. 23, par. 2.

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and the needs that must be met within Blue Shield if it is to be able to extend the broadest possible medical prepayment protection, under medical auspices, to the greatest possible number of people, and thus make the maximum contribution both to the public welfare and to the free practice of medicine."

Chairman of the nine-man commission is Dr. Henry S. Blake of Topeka, Kansas.

Three of its members are the A.M.A. representatives on the Board of Directors of the National Blue Shield Association: Drs. David B. Allman of Atlantic City, N. J.; George M. Fister of Ogden, Utah; and Dwight H. Murray of Napa, Calif.; and other members are Dr. Carl R. Ackerman of New York City, Board Chairman of the New York City Blue Shield Plan; Dr. A. A. Morrison of Ventura, Calif.; Dr. Donald N. Sweeney of Detroit, Mich.; Mr. Lewis G. Hersey, Executive Director of the Medical Service Bureau (Blue Shield Plan) of the Utah State Medical Association; and Mr. Walter R. McBee, Executive Director of the Texas Blue Shield-Blue Cross Plans.

13th Annual Meeting American Association of Blood Banks

San Francisco is to be the site of the 13th Annual Meeting of The American Association of Blood Banks to be held August 21-26. The six-day meeting offers a variety of topics in this rapidly

advancing field. Papers will be presented by many speakers recognized both nationally and internationally for their excellence in various areas of immunohematology and blood banking. Three guest speakers from London, England, are P. L. Mollison, M.D., A. E. Mourant, M.D., and Ruth Sanger, Ph.D. For further information write: American Association of Blood Banks, Suite 1619, 30 North Michigan Avenue, Chicago 2, Illinois.

Symposium on Surgery of Endocrine Organs

A three-day symposium on the Surgery of Endocrine Organs will be presented by the schools of medicine of the New York University Medical Center, November 17 to 19, 1960. Participants will include a guest faculty of some of the most distinguished authorities in this field, among whom are Drs. Oliver Cope, Edwin Ellison, David Hume, Michael Lepore, John A. Oates, Olaf H. Pearson, Milton H. Porter, William W. Scott, Paul Wermer, Sidney Werner, and others. The sessions will be under the direction of Dr. John M. Mulholland, Professor and Chairman, Department of Surgery, and Dr. S. Arthur Localio, Professor of Clinical Surgery.

Further details, including an application, may be obtained from the Office of the Associate Dean, New York University Postgraduate Medical School, 550 First Avenue, New York 16, New York.

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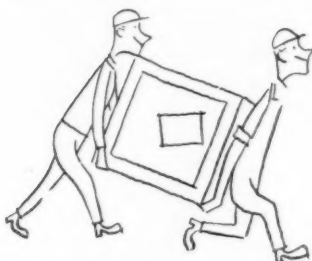
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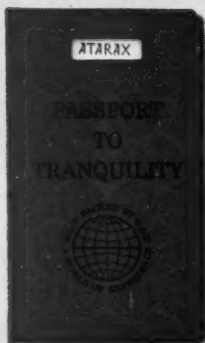
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"... seems to be the agent of choice in patients suffering from removal disorientation, confusion, conversion hysteria and other psychoneurotic conditions occurring in old age." Smigel, J. O., et al.: *J. Am. Geriatrics Soc.* 7:61 (Jan.) 1959.

"All [asthmatic] patients reported greater calmness and were able to rest and sleep better... and led a more normal life.... In chronic and acute urticaria, however, hydroxyzine was effective as the sole medication." Santos, I. M., and Unger, L.: Presented at 14th Annual Congress, American College of Allergists, Atlantic City, New Jersey, April 23-25, 1958.

"... especially well-suited for ambulatory neurotics who must work, drive a car, or operate machinery." Ayd, F. J., Jr.: *New York J. Med.* 57:1742 (May 15) 1957.

...and for additional evidence

Bayart, J.: *Acta paediat. belg.* 10:164, 1956. Ayd, F. J., Jr.: *California Med.* 87:75 (Aug.) 1957. Nathan, L. A., and Andelman, M. B.: *Illinois M. J.* 112:171 (Oct.) 1957.

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Eisenberg, B. C.: *J.A.M.A.* 169:14 (Jan. 3) 1959. Coirault, R., et al.: *Presse méd.* 64:2239 (Dec. 26) 1956. Robinson, H. M., Jr., et al.: *South. M. J.* 50:1282 (Oct.) 1957.

Carber, R. C., Jr.: *J. Florida M. A.* 45:549 (Nov.) 1958. Menger, H. C.: *New York J. Med.* 58:1684 (May 15) 1958. Farah, L.: *Internat. Rec. Med.* 169:379 (June) 1956.

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The Colorado State Medical Society

Annual Session, September 14-17, 1960
Estes Park

President: John L. McDonald (Chairman of the Board), Colorado Springs.

President-elect: Cyrus W. Anderson, Denver.

Vice President: J. Alan Shand (Vice Chairman of the Board), La Junta.

Treasurer: William C. Service, Colorado Springs, 1962.

Constitutional Secretary: Harry C. Hughes, Denver, 1960.

Additional Trustees: Carl W. Swartz, Pueblo, 1960; Fred R. Harper, Denver, 1961; Walter M. Boyd, Greeley, 1961; Carl H. McLauthlin, Denver, 1962.

Delegates to A.M.A.: Kenneth C. Sawyer, Denver, 1960; (Alternate, Gatewood C. Milligan, 1960); E. H. Munro, Grand Junction, 1961; (Alternate, Harlan E. McClure, 1961); I. E. Hendryson, Denver, 1961; (Alternate, C. C. Wiley, Longmont, 1961).

Executive Secretary: Mr. Harvey T. Sethman, 835 Republic Building, Denver 2, Colorado; telephone AComa 2-0547. See December, 1959, issue for complete list of committees.

Montana Medical Association

Annual Meeting, September 15-17, 1960
Bozeman

President: Leonard W. Brewer, Missoula.

President-Elect: Raymond F. Peterson, Butte.

Vice President: Everett H. Lindstrom, Helena.

Secretary-Treasurer: William E. Harris, Livingston.

Assistant Secretary-Treasurer: Jess T. Schwidde, Billings.

Executive Committee: Leonard W. Brewer, Missoula; Raymond F. Peterson, Butte; Everett H. Lindstrom, Helena; W. E. Harris, Livingston; Jess T. Schwidde, Billings; John A. Layne, Great Falls; Herbert T. Caraway, Billings.

Delegate to the A.M.A.: Paul J. Gans, Lewistown.

Alternate Delegate to the A.M.A.: S. C. Pratt, Miles City.

Executive Secretary: Mr. L. R. Hegland, P.O. Box 1092, Billings; telephone 9-2585.

See April, 1960, issue for complete list of committees.

Nevada State Medical Association

Annual Meeting, September 7-10, 1960
Las Vegas

President: Ernest W. Mack, Reno.

President-elect: Wesley W. Hall, Reno.

Secretary-Treasurer: William A. O'Brien, III, Reno.

Delegate to American Medical Association: Wesley W. Hall, Reno; alternate: Earl N. Hillstrom, Reno.

Executive Committee: Roland Stahr, Reno; Ernest W. Mack, Reno; William A. O'Brien, III, Reno; Wesley W. Hall, Reno; Earl N. Hillstrom, Reno; Stanley L. Hardy, Las Vegas; Thomas S. White, Boulder City; John M. Read, Elko; John M. Moore, East Ely; William M. Tappan, Reno.

Executive Secretary: Mr. Nelson B. Neff, P. O. Box 2790, Reno; telephone FA. 3-6788.

See January, 1960, issue for complete list of committees.

New Mexico Medical Society

OFFICERS—1960-1961—Terms of Officers and Committeemen expire at the Annual Session in the year indicated. Where no year is indicated the term is for one year only and expires at the 1961 Annual Session.

President: Allan L. Haynes, Clovis.

President-elect: William E. Badger, Hobbs.

Vice President: R. C. Derbyshire, Santa Fe.

Secretary-Treasurer: T. L. Carr, Albuquerque.

Immediate Past President: Lewis M. Overton, Albuquerque.

Speaker, House of Delegates: C. Pardue Bunch, Artesia.

Vice Speaker, House of Delegates: Omar Legant, Albuquerque.

Delegate to A.M.A.: Earl L. Malone, Roswell.

Alternate Delegate to A.M.A.: Leland S. Evans, Las Cruces.

Councillors for Three Years: John McCulloch, Farmington; George Prothro, Clovis; Gerald Slusser, Artesia.

Councillors for Two Years: Robert P. Beaudette, Raton; William R. Oakes, Los Alamos.

Councillors for One Year: William Hossley, Deming; Guy E. Rader, Albuquerque.

Executive Secretary: Mr. Ralph Marshall, 220 First National Bank Building, Albuquerque; telephone CH. 2-2102.

Elected committees

GRIEVANCE COMMITTEE: Robert Coleman, Portales, 1961; Ezra Neidich, Las Cruces, 1961; Albert C. Rood, Albuquerque,

1961; Richard Angle, Santa Fe, 1962; Joseph Sharpe, Farmington, 1962; Walter J. Hopkins, Lovington, 1962; Richard Walsh, Silver City, 1963; Ernest Faigle, Alamogordo, 1963; Paul Feil, Deming (Secretary), 1963.

NEW MEXICO PHYSICIANS' SERVICE: H. P. Borgeson, Alamogordo, 1961; Frank W. Parker, Gallup, 1963; Allan L. Haynes, Clovis, 1962; Emmitt Jennings, Roswell, 1962; Clarence Kaiser, Roswell, 1962; Omar Legant, Albuquerque (President), 1963; H. O. Lehman, Portales, 1962; John McCulloch, Farmington, 1963; W. L. Minton, Lovington, 1962; Joseph Mansfield, Carlsbad, 1963; John T. Parker, Farmington, 1961; Philip Shultz, Santa Fe, 1961; Eugene Szerlip, Albuquerque, 1961; John D. Abrams, Albuquerque, 1963.

NOMINATING COMMITTEE: W. A. Stark, Las Vegas (District I—Colfax, San Miguel); Howard Seitz, Santa Fe (District II—Santa Fe, Los Alamos, Taos); Stuart W. Adler, Albuquerque (District III—Bernalillo); James B. Moss, Clovis (District IV—Curry-Roosevelt, Quay, De Baca); Alfred Blauw, Roswell (District V—Lea, Eddy, Chaves); James C. Sedgwick, Las Cruces (District VI—Otero, Luna, Dona Ana, Grants, Sierra); Wendell Peacock, Farmington (District VII—Valencia, McKinley, San Juan), Chairman.

CONVENTION SITE COMMITTEE: Earl Flanagan, Carlsbad; William Langlois, Albuquerque (Chairman); Brian Moynahan, Santa Fe.

Appointed committees

LEGISLATIVE COMMITTEE: R. C. Derbyshire, Santa Fe, and Thomas L. Carr, Albuquerque, Co-Chairmen; Jack Dillahun, Albuquerque, Bernalillo; Earl Malone, Roswell, Chaves; Louis Pavletich, Raton, Colfax; Samuel Neff, Clovis, Curry-Roosevelt; William Sedgwick, Las Cruces, Dona Ana; Gerald Slusser, Artesia, Eddy; Richard Walsh, Silver City, Grant; William L. Minton, Lovington, Lea; William Oakes, Los Alamos, Los Alamos; L. J. Whitaker, Deming, Luna; Richard Pousma, Gallup, McKinley; Jose Rivas, Belen, Mid-Rio Grande; Ernest T. Faigle, Alamogordo, Otero; Thomas B. Hoover, Tucumcari, Quay; John T. Parker, Farmington, San Juan; J. J. Johnson, Las Vegas, San Miguel; Harry Ellis, Santa Fe, Santa Fe; H. B. Johnson, Truth or Consequences, Sierra; Ashley Pond, Taos, Taos; Matt A. Connell, Grants, Valencia.

PUBLIC RELATIONS COMMITTEE: Howard Seitz, Santa Fe, Chairman; A. H. Follingstad, Albuquerque; John D. Abrams, Albuquerque; Martin Goodwin, Clovis; Avon Flaniken, Farmington; Everett H. Wood, Albuquerque.

MEDICAL-LEGAL COMMITTEE: John D. Abrams, Albuquerque, Chairman; Jack Dillahun, Albuquerque; James McCrory, Santa Fe; Randall Briggs, Roswell; H. P. Borgeson, Alamogordo.

MENTAL HEALTH AND ALCOHOLISM COMMITTEE: William Sears, Los Alamos, Chairman; Fred Langner, Albuquerque; Willard Shankel, Roswell.

PUBLIC HEALTH COMMITTEE: Roy Goddard, Albuquerque, Chairman; Hugh Woodward, Albuquerque; George Prothro, Clovis; Frank Parker, Gallup; W. E. Badger, Hobbs; Matt Connell, Grants.

Subcommittee to Public Health Committee: Martin B. Goodwin, Clovis; Paul Lee, Los Alamos.

CONSTITUTION AND BY-LAWS COMMITTEE: Omar Legant, Albuquerque, Chairman; Leland Evans, Las Cruces; C. Pardue Bunch, Artesia; R. C. Derbyshire, Santa Fe; Chester Bynum, Farmington.

REHABILITATION COMMITTEE: Charles Beeson, Albuquerque, Chairman; Earl Latimer, Roswell; Vincent Accardi, Gallup; Lawrence Amick, Albuquerque; David Kendall, Farmington.

SCHOOL HEALTH COMMITTEE: Elsa Brumlop, Santa Fe.

INDUSTRIAL HEALTH COMMITTEE: James Dudley, Albuquerque, Chairman; Matt Connell, Grants; Edgar Rygh, Santa Rita; James O'Laughlin, Jal; C. C. Lushbaugh, Los Alamos.

CIVIL DEFENSE COMMITTEE: Albert Schwichtenberg, Albuquerque, Chairman; William Blank, Albuquerque.

COMMITTEE ON AGING: Louis Levin, Albuquerque, Chairman; William Hossley, Deming; Warren Brown, Albuquerque; H. R. Landmann, Santa Fe; George Hathaway, Las Vegas; Samuel Ziegler, Espanola; Molly Radford, Santa Fe; Mr. Louis Lagrave, ex-officio.

LIAISON COMMITTEE TO ALLIED PROFESSIONS: W. W. Kridelbaugh, Albuquerque, and Jack Redman, Albuquerque, Co-chairmen; Richard Streeter, Santa Fe; John Griffin, Albuquerque; William Langlois, Albuquerque; Eugene Szerlip, Albuquerque; Elmo Anderson, Albuquerque; Leroy Miller, Albuquerque; Stuart W. Adler, Albuquerque.

MEDICARE ADJUDICATION COMMITTEE: John J. Corcoran, Albuquerque, Chairman; George Anison, Albuquerque; Thomas L. Carr, Albuquerque; Irvine Jordan, Albuquerque; Bert Kempers, Albuquerque; Louis F. Kuehn, Albuquerque; James McGuckin, Albuquerque; C. E. Molholm, Albuquerque; Theodore R. Sadock, Albuquerque; Albert Schonberg, Albu-

querque; Sidney Schultz, Albuquerque; James Shortle, Albuquerque; James Wiggins, Albuquerque; L. H. Wilkinson, Albuquerque.

MATERNAL AND INFANT MORTALITY COMMITTEE: David B. Post, Albuquerque, Chairman; Louis F. Kuehn, Albuquerque; Alvina Looman, Santa Fe; Alton Pruitt, Roswell; R. V. Seligman, Albuquerque; Howard Wilson, Los Alamos; Raymond Young, Santa Fe; Eleanor Adler, Albuquerque; Stanley J. Leland, Santa Fe, ex-officio.

ADVISORY COMMITTEE TO THE BOARD OF REGENTS OF UNIVERSITY OF NEW MEXICO: Albert Maisel, Albuquerque, and Lewis M. Overton, Albuquerque, Co-chairmen; Fred Hanold, Albuquerque; Richard Pousma, Gallup; John Conway, Clovis; Arthur Fischer, Las Cruces; Robert Beaudette, Raton.

AMERICAN MEDICAL EDUCATION FOUNDATION: John F. Boyd, Albuquerque.

ROCKY MOUNTAIN MEDICAL CONFERENCE CONTINUING COMMITTEE: Aaron Margulis, Santa Fe, Chairman; Wesley Connor, Albuquerque; Andrew Babey, Las Cruces; Charles Beeson, Albuquerque; V. E. Berchtold, Santa Fe.

ACCIDENT PREVENTION COMMITTEE: Harold A. Fenner, Hobbs, Chairman.

STUDENT LOAN COMMITTEE: Allan L. Haynes, Clovis, Chairman; Lewis M. Overton, Albuquerque; James C. Sedgwick, Las Cruces.

ADVISORY COMMITTEE TO THE DEPARTMENT OF PUBLIC WELFARE: Albert Rosen, Taos, Chairman; H. R. Landmann, Santa Fe; Earl L. Malone, Roswell; E. H. Dellinger, Las Vegas; Richard A. Walsh, Silver City; G. E. Slusser, Artesia; W. E. Badger, Hobbs.

CONVENTION SCIENTIFIC PROGRAM COMMITTEE (Members elected by House of Delegates): Earl Flanagan, Carlsbad, 1963; Martin Goodwin, Clovis, 1963; Andrew Babey, Las Cruces, 1962; Aaron Margulis, Santa Fe, 1962; Richard Angle, Santa Fe, 1961; Roy Goddard, Albuquerque, 1961.

The Utah State Medical Association

Annual Session, September 21-23, 1960
Salt Lake City

President: I. Bruce McQuarrie, Ogden.

President-elect: Wallace S. Brooke, Salt Lake City.

Secretary: J. Poulson Hunter, Salt Lake City, 1961.

Treasurer: R. M. Dalrymple, Salt Lake City, 1960.

Councillors: Box Elder, D. L. Bunderson, Brigham City, 1960; Cache Valley, C. J. Daines, Logan, 1960; Carbon County, A. R. Demman, Helper, 1961; Central Utah, Gaylord A. Buchanan, Richfield, 1962; Salt Lake County, R. W. Sonntag, Salt Lake City, 1959; Southern Utah, J. S. Prestwich, Cedar City, 1960; Uintah Basin, R. Bruce Christian, Vernal, 1961; Utah County, Ralph E. Jorgenson, Provo, 1962; Weber County, Wendell J. Thomson, Ogden, 1961.

Executive Committee: I. Bruce McQuarrie, Ogden; U. R. Bryner, Salt Lake City; Wallace S. Brooke, Salt Lake City; J. Poulson Hunter, Salt Lake City; Robert M. Dalrymple, Salt Lake City.

Delegate to American Medical Association: Kenneth B. Castleton, Salt Lake City; Alternate, Drew Petersen, Ogden.

Executive Secretary: Mr. Harold Bowman, 42 South Fifth East Street, Salt Lake City 2; telephone EL 5-7477.

See February, 1960, issue for complete list of committees.

Wyoming State Medical Society

Annual Session, September 7-10, 1960
Jackson Lake Lodge

President: Benjamin Giltitz, Thermopolis.

President-elect: Francis A. Barrett, Cheyenne.

Vice President: S. J. Glovale, Cheyenne.

Secretary: F. H. Haigler, Casper.

Treasurer: C. D. Anton, Cheyenne.

Councillors: Albany County, B. J. Sullivan, Laramie, 1960; Carbon County, Guy M. Halsey, Rawlins, 1960; Converse County, Roman J. Zwalsh, Glenrock, 1960; Fremont County, Bernard D. Stack, Riverton, 1960; Goshen County, O. C. Reed, Torrington, 1962; Laramie County, David M. Flett, Cheyenne, 1962; Natrona County, Roy Holmes, Casper, 1962; Sheridan County, Ralph Arnold, Sheridan, 1962; Sweetwater County, R. C. Stratton, Green River, 1961; Teton County, D. G. MacLeod, Jackson, 1961; Uinta County, J. S. Hewell, Evanston, 1961; Northeastern Wyoming, Virgil Thorpe, Newcastle, 1961; Northwest Wyoming, John Froyd, Worland, 1960.

Delegate to A.M.A.: A. T. Sudman, Green River; Alternate Delegate to A.M.A.: B. J. Sullivan, Laramie.

Executive Secretary: Mr. Arthur R. Abbey, Box 2036, Cheyenne; telephone 2-5525.

See February, 1960, issue for complete list of committees.

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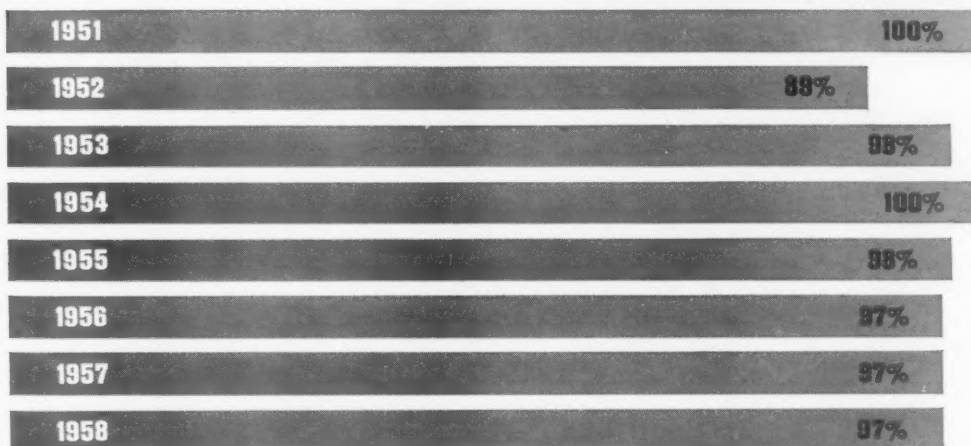
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